Army Integrated Air and Missile Defense System of Systems (AIAMD SoS) Update 1

(version 3.0)

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This System Training Plan (STRAP) is preliminary.
Front end analysis (mission, task, job) is ongoing. FCoE- ADA School will amend and update this STRAP as details solidify.

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1.0 System Description

The AIAMD SoS program provides the capability to integrate air defense artillery common Air and Missile Defense (AMD) mission command nodes, sensors and launchers on an integrated fire control network (IFCN) to perform engagement and force operations. The program supports AMD operations (e.g., fire control, identification, surveillance, weapons control and IFCN operations) across all Air Defense Artillery (ADA) echelons and with unified action partners. AIAMD SoS spearheads several new capabilities: a common network enabled AMD mission command, integrated defense design, plug and fight (P&F), and advanced engagement techniques. The Integrated Air Missile Defense Battle Command System (IBCS) is the programmed solution to enable common AMD mission command across ADA forces. Network enabled common AMD mission command allows ADA command nodes the ability to utilize data from organic and non-organic sensors to support engagements by networked systems. Integrated defense design allows commanders and staff at all echelons to develop, evaluate, store, and implement collaboratively planned, defense designs that consider all ADA systems. Plug and fight allows dynamic tailoring of sensor, launcher and common AMD mission command within the network as changes occur during operations. Advanced engagement concepts potentially enable engagements of tracks that are not held by the interceptor's organic sensor. A key enabler for maneuver forces is the integration of IBCS into ADAM Cells. The IBCS integrates common AMD mission command nodes, sensors and launchers through a P&F capability that provides connectivity to the IFCN through the use of "A" and "B" Kits, which are designed to integrate components into the IFCN via network relays. The IBCS will support both engagement operations and force operations allowing the operator to configure their workstations for the tasks being performed, and will include an extensive planning capability to support both current and future operations.

First Unit Equipped (FUE): 4QFY17

Initial Operational Capability: (IOC) - 3QFY18

2.0 Target Audience

The proposed target audience for the Army Integrated Air and Missile Defense System of Systems (AIAMD SoS) comes from existing Army Military Occupational Specialties (MOS) and Areas of Concentration (AOC). Air defense officers, warrant officers, enlisted personnel, and other support personnel shall operate the IBCS. The United State Army Ordnance School is the proponent for maintainers. The following is a list of MOS/AOC that will be impacted by fielding of the IBCS:

MOS	Proponent
14A Air Defense Artillery (Officer)	Air Defense Artillery School
14E Patriot Fire Control Enhanced Operator /Maintainer	Air Defense Artillery School
14H Air Defense Enhanced Early Warning System Operator	Air Defense Artillery School
14G Air Defense Battle Management System Operator	Air Defense Artillery School
14T Patriot Launching Station Enhanced Operator/Maintainer	Air Defense Artillery School
14P Air and Missile Defense Crewmember	Air Defense Artillery School
140A Command and Control Systems Integrator	Air Defense Artillery School

140E Air and Missile Defense (AMD) Systems Tactician/Technician	Air Defense Artillery School
25B Information Technology Specialist	Signal School
25N NODAL Network Systems Operator-Maintainer	Signal School
25Q Multi channel Transmission Systems Operator-Maintainer	Signal School
94E Radio and Communications Security (COMSEC) REPAIRER	Ordinance School
94M Radar Repairer	Ordinance School
94S Patriot System Repairer	Ordinance School

No new MOS is required to support, operate or maintain the IBCS. However, there are current MOS that will collapse into a smaller number of 14 series MOS resulting in a more targeted and streamlined training of the AMD soldiers throughout the force.

The information on each MOS related to grade/skill level, specialty, prerequisite training, reading grade level, battery test scores, civilian education level, average age, time in service and related experiences are in AR 611-21 Smart Book.

Courses impacted by IBCS

Functional and Professional Courses	MOS	Proponent
2-44-C20B, ADA Basic Officer Leader-Branch	14A	Air Defense Artillery School
2-44-C23 PH1, Air Defense Artillery Captains Career-RC Ph1	14A	Air Defense Artillery School
2-44-C22, Air Defense Artillery Captains Career Ph2	14A	Air Defense Artillery School
2G-F25, ADA Pre-Command	14A	Air Defense Artillery School
2G-SI/ASIT4, ADA Fire Control Officer	14A/140E	Air Defense Artillery School
2F-SIT5/4F-ASIT5, Patriot Top Gun	14A/140E	Air Defense Artillery School
043-14E10, Patriot Fire Control Enhanced Operator/ Maintainer	14E	Air Defense Artillery School
043-ASIT4, Patriot Master Gunner	14E/14T	Air Defense Artillery School
043-14G10, AD Battle MGT SYS OPR	14G	Air Defense Artillery School
043-14H10, AD Enhanced Early Warning Operator	14H	Air Defense Artillery School

4F-140A, Command And Control Systems Integrator WOBC	140A	Air Defense Artillery School
4F-140E, Patriot System Technician WO Basic	140E	Air Defense Artillery School
2-44-C32, ADA Warrant Officer Advanced Course	140A	Air Defense Artillery School
2-44-C32, ADA Warrant Officer Advanced Course	140E	Air Defense Artillery School

3.0 Assumptions

- There is no requirement to increase the current ADA Soldier's reading level, battery test scores, and related experiences to operate and maintain IBCS.

- Training of Soldiers for IBCS duty positions will involve Fires Center of Excellence (FCoE), Cyber Center of Excellence (CyberCoE), and Sustainment Center of Excellence (SCoE).

- There will be no increase in the total Army force structure to support IBCS.

- Training of IBCS will impact institutional, operational, and self-development training strategies of the Combined Arms Training Strategy (CATS).

- ADA courses will not increase in length until all units are fielded IBCS. Training of IBCS will change the content of ADA courses.

- United States Army Air Defense School (USAADAS) will use tactical equipment and TADSS to train IBCS tasks.

- There will be an increase in training base resource requirements for concurrent training of AIAMD capability and current force systems.

- AIAMD capability shall interface with Live, Virtual, Constructive-Integrated Training Environment (LVC-ITE) per the capabilities production document (CPD). It will be used in battle labs and for research and development.

- The AIAMD capability includes components of the IBCS that will provide situational awareness and common tactical air picture to commanders and staff.

- Training development resources, manpower, and equipment will be available to support AIAMD capability training and training development.

- Materiel Developer (MATDEV) will provide required New Equipment Training (NET) and Instructor and Key Personnel Training (I&KPT) on training equipment to include TADSS and prior to resident training start date.

- The authoring of Additional Skill Identifiers (ASIs) is undecided at the present time due to cost effectiveness, fielding plans, and Human Resource Command (HRC) ability to track Soldiers based on ASIs.

- A requirement to realign the current MOS structure is also undecided and not yet approved by proponent leadership.

- There is no requirement to develop a new MOS to operate and maintain IBCS. However, realignment of ADA MOS from system based to function based

is anticipated after fully fielding IBCS.

- ADA and Ordnance courses will not increase in length until all units are fielded IBCS.

- Training of IBSC will change the content of ADA courses. Task lists will increase with the fielding of IBCS and may impact course lengths until fielding is complete.

4.0 Training Constraints

Potential constraints as related to MANPRINT domains are provided below:

Manpower.

Manpower required for AIAMD Mission Command components to support the institutional training base must come from Department of the Army (DA) resources to include military, civilian and contractor manpower. The Army/proponent Training Developer (TNGDEV) should plan and program for the operator/maintainer and repairer force structure and training base resources to support the fielding and sustainment of the AIAMD Mission Command components.

The AIAMD component/capability support concept has two (2) maintenance levels: Field (Operator/Maintainer) and Sustainment (Repairer) including civilian and contractor manpower. The Army/proponent TNGDEV should plan and program for the operator/maintainer and repairer force structure and training base resources to support the fielding and sustainment of the AIAMD Mission Command components.

Personnel.

All current and future ADA MOSs are the Target Audience for AIAMD Operator/Maintainers/Crew Members. Skills for AIAMD Mission Command components will not exceed those for the current MOS 14 series Soldiers. USAADAS shall participate in the Task and Skill identification process to ensure the target audience Soldiers can operate and maintain AIAMD Mission Command components.

Ordnance MOSs 94E, 94M and 94S are the Target Audience for AIAMD Mission Command element/capability repairers. Skill levels for AIAMD elements/capabilities will not exceed those for the current 94E, 94M, and 94S Soldiers. The USAOMEMS should participate in the Task and Skill identification process to ensure the target audience Soldiers can repair AIAMD elements.

The CyberCoE analysis of the Integrated Fire Control Network (IFCN) is still pending proponent decision of the capability and task ownership. It can be assumed that 25Q series will be the likely audience with support from the 14 series.

- ADA AOC 14A and 14E, as well as MOS 140A (ADA), are the officer and warrant officer Target Audience for AIAMD. Skills for AIAMD Mission Command components will not exceed those for the current officer AOC and warrant officer MOS. The USAADAS shall participate in the task and skill

identification process to ensure the target audience Soldiers can supervise and lead AIAMD elements/units.

- Training must be supported using military, civilian, and contractor personnel. Staffing and organizations must reflect these requirements. TNGDEV/proponents should modify Tables of Distribution and Allowance and Tables of Organization and Equipment to account for AIAMD Mission Command components fielding.

Training.

Currently a New Equipment Training Plan (NETP) is developed for each fielded system/element. A NETP for the AIAMD will be developed. The MATDEV (the Program Executive Office Missiles and Space (PEO MS), and TNGDEV (TRADOC proponents/USAADAS) should input appropriate training information via the Army Modernization Training Automation System (AMTAS) to ensure the NET strategy and requirements in this STRAP are documented in the NETP.

Training time (course length) for existing ADA, Ordnance and other affected MOS may be affected by AIAMD Mission Command training. Any course length change must be approved by the proponent Commandant and the Commanding General TRADOC. Proponents should integrate AIAMD training requirements into existing courses and adjust course lengths appropriately and/or develop new courses.

- The training equipment (AIAMD Mission Command components) and TADSS must be provided in sufficient quantities and within the appropriate time frames to support operational testing, institutional training and fielding. Required resources and facilities will be funded and/or provided by TRADOC and/or the MATDEV. The TNGDEV (USAADAS, USAOMEMS, CyberCoE, and other affected proponents) should be an active participant in the AIAMD Supportability Integrated Product Team (SIPT), Logistics Working Group and other appropriate program activities that reviews and evaluates TADSS designs, and also establishes, adjusts and monitors schedules for TADSS and training base end item deliveries.
- Training for the AIAMD Mission Command components shall be developed per TRADOC Regulation 350-70, using TRADOC approved software, and within the framework of the DoD/Army Materiel Acquisition Process. Training will be conducted on a continuing basis to support the ADA and Ordnance MOS/AOC

and related additional skill identifier/skill identifier (ASI/SI) as appropriate. The TNGDEV should ensure that regulatory requirements are adequately addressed thus providing effective and efficient training for all Soldiers throughout the testing, fielding and sustainment phases.

- Existing TRADOC schools and facilities will be used whenever possible to support the AIAMD Mission Command components. Every attempt should be made to collocate installation training activities for sharing of tactical equipment and TADSS at the respective schools. The TNGDEV should be an active participant in determining the effective and efficient use of training resources.

- Training related literature and technical publications must be provided in sufficient quantity and within required time frames by the MATDEV to support AIAMD Mission Command components fielding per the AIAMD schedules. The TNGDEV should continue to be an active participant in all activities involving the development, validation, verification, and delivery of AIAMD Mission Command component publications.

- 14 and 140 (MOS) series training courses must provide instruction for operator/maintainer/crewman personnel to support AIAMD Mission Command components. Graduates of 14 and 140 (MOS) series AIAMD Mission Command component/capability training should be qualified to operate and maintain the AIAMD Mission Command components upon graduation.

- 94 (MOS) series training courses must provide instruction for repairer personnel to support and AIAMD Mission Command system components. Graduates of 94 (MOS) series AIAMD component/capability training should be qualified to repair the AIAMD Mission Command components upon graduation.

- The CyberCoE analysis of the Integrated Fire Control Network (IFCN) is still pending proponent decision of the capability and task ownership. It can be assumed that 25Q series will be the likely audience with support from the 14 series.

- AIAMD component/capability end items with ET are required for the training base. The TNGDEV should document the

requirement and plan for delivery and use at USAADAS and USAOMEMS to support AIAMD Mission Command components courses.

- The operation and maintenance of training devices and/or embedded trainer software must not require aptitude, education, or training that exceeds the target audience capabilities.

Human Factors Engineering.

Emplacement, operations and maintenance design of the AIAMD Mission Command components, and TADSS will be per Human Factors Engineering (HFE) design criteria and requirements. TNGDEV and Combat Developer (CBTDEV) should work to influence the design of TADSS to ensure compliance with appropriate HFE standards and appropriate workload analyses.

System Safety.

AIAMD Mission Command components must meet all government standards, requirements and design practices to ensure the system optimizes safety during all phases of transport, storage and operation. TNGDEV and CBTDEV shall actively work to influence the design of AIAMD Mission Command components, end items and all related products to ensure compliance with regulatory requirements. Training publications and courses will focus on safety considerations.

Health Hazards.

Use of hazardous materials or exposure of personnel to health hazards shall be minimized or eliminated per AR 40-10. TNGDEV and CBTDEV should work to influence the design of AIAMD Mission Command components, end items and all related products to ensure compliance with regulatory requirements.

Personnel with potential exposure to hazardous materials will be trained on safe handling procedures per Occupational Safety and Health Agency CFR 29 Part 1910.1200, Hazard Communication. TNGDEV should ensure that all regulatory requirements are an integral part of AIAMD training.

- Training equipment will be analyzed to identify and eliminate hazards or reduce the associated risk to an acceptable risk level. TNGDEV should actively monitor development of AIAMD Mission Command component/capability training equipment and products to influence their design to ensure compliance with regulatory requirements.

Soldier Survivability.

AIAMD Mission Command components will be exposed to enemy reconnaissance and target acquisition systems, small arms, grenades, improvised explosive devices (IED), machine gun fire from enemy operations insurgent terrorists or special operations personnel, ballistic fragments from indirect and aerial weapon systems, and Nuclear Biological Chemical weapons and agents. TNGDEV and CBTDEV should monitor development of the AIAMD Mission Command component end items to include common vehicles and all related products and influence their design to ensure compliance with regulatory requirements and to increase Soldier survivability on the battlefield.

5.0 System Training Concept

This concept supports fielding, replacement training, and sustainment training for the institutions and the field units. It contains all necessary training support, training products, and courses. The strategy includes training requirements for institutional, operational, and self-development domains.

The MATDEV will design and develop training materials compliant with the Analysis Design Development Implementation Evaluation (ADDIE) process as identified in TRADOC Regulation 350-70, the Army Learning Model TP 525-8-2 w/C1 06Jun2011, and MIL-PRF-29612B. The training developer (TNGDEV) reviews and provides input to the new equipment training plan (NETP) through Army Modernization Training Automation System (AMTAS). The MATDEV provides the NETP, NET, course materials, and the presentation of NET courses. The MATDEV provides TADSS prior to hands-on NET to conduct training. The responsible training proponent ensures effectiveness of NET and training support components are validated before the conduct of NET.

Maintenance and operators training will incorporate a combination of conference and practical application training for operators and maintainers. They will use tactical equipment, TADSS, institutional maintenance trainer (IMT), embedded training, and cognitive air defense training simulation (CAD-TS) during practical exercises.

Officers, warrant officers, and enlisted Soldiers will use all available training material provided and developed for self-development.

The Integrated Battle Command System (IBCS) impacts AMD tactics, techniques, and procedures (TTP), for battery and battalion crew drills. IBCS will have impacts on AAMDC, ADA BDE, ADAM, Patriot, IFPC, ADAM cell doctrine, and Terminal High Altitude Area Defense (THAAD) units later in the development process.

IBCS will also be fielded to the National Guard's AAMDC, ADA Brigade, ADAM Cell, Sentinel, IFPC, and the Regional Training Institute (RTI). The Regional Training Institute requires 10 IBCS suitcase servers that interfaces with a TADSS to support institutional training for the 14G and Multi Mission Launcher Operator (MML) 14S and XX IBCS TADSS to support unit training.

TNGDEV will identify the requirement for doctrine and tactics training (DTT) upon receipt of the draft NETP. When required and feasible, DTT should be conducted after NET. The personnel required to conduct DTT are GS-11s, E-7s or above from the Doctrine, Enlisted/Officer, and Operational Training Divisions of DOTD. DTT provides information on how to employ the improved system to accomplish its wartime mission.

The Training Test Support Package (TTSP) provides procedures to train and certify Soldiers and units to accomplish their mission during wartime. Leaders conduct individual (operations and maintenance

training), collective training, and evaluation to achieve certification. The TNGDEV updates the training documents of the TTSP consisting of the STP, UTL, combined arms training strategies, training circulars, and gunnery program.

The UTL has a listing of collective tasks for unit training. The UTL identifies all of the collective tasks the unit is organized, manned, and equipped to conduct. This ensures units train the appropriate tasks to required proficiency levels.

CATS provide task-based, event-driven training strategies designed to assist unit commanders in achieving training readiness with Army training guidance and doctrine. They can be adapted to the units requirements based on the commander's assessment. CATS identify and group the supporting collective tasks into task groups for each mission-essential task. The discussion of each task group includes guidance for training the task group, resource requirements, and training support requirements for each proposed training event.

TC consist of drills that are essential elements to the success of the units on the battlefield. These drills provide performance measures and a collective sequential set of procedures that, when applied Army-wide, will minimize the impact caused by the turnover in personnel. These drills are used by the battery and platoon trainers to train their crews to do the selected collective tasks correctly, rapidly, and confidently. Drill training is an integral part of peacetime combat-oriented training, which improves proficiency in mission-oriented individual and collective tasks, maintains high combat readiness, and promotes cohesive teamwork and esprit de corps. This method requires training individual tasks, leader tasks, and collective tasks before the conduct of critical wartime missions. The purpose of evaluating a drill is to determine if the unit can perform all of the performance measures to standard.

The gunnery program is used to train and test the proficiency of the individuals, crews, and collective tasks. This program standardizes gunnery training and gunnery skill qualifications through performance-based, sequential, progressive, realistic, and challenging training.

The gunnery program references the current drills, UTL, and technical manuals (TMs) identifying the tasks to be performed by individuals and firing unit crews for precertification tables leading up to certification.

Table IV: Crew members certify on the equipment and must pass a written examination within 90 days of their arrival in the unit. Written examinations are a semi-annual requirement thereafter and are given in conjunction with a Table VIII or Table XII evaluation, regardless of when the last exam was passed.

Table VIII: (Semi-annual) Crews are Table VIII certified

Table XII: (Annual) Crews are Table XII certified

Reference Chapter 3.0 for current assumptions when referencing the Integrated Battle Command System (IBCS)

5.1 New Equipment Training Concept (NET)

The Material Developer (MATDEV), PEO MS will ensure that NET is funded and implemented per AR 350-1, the AIAMD Training Plan and that the NETP for the AIAMD is in accordance with TRADOC Regulation 350-70, Training Development Management, Processes, and Products. Training subsystems are deliverable components of the Materiel Acquisition Process (MAP). This concept visualizes an integrated training subsystem supporting the institution, system/element fielding/deployment and subsequent unit sustainment. The training concept includes training of all tactical systems' individual and collective tasks (as described in individual system training plans (STRAPS) required enabling AIAMD Soldiers and units to support the Future (Objective) Force. Additional detail may be found in individual STRAPS for the following systems:

- Indirect Fire Protection Capability Increment 2-Intecept (IFPC Inc 2-I)
- Terminal High Altitude Area Defense (THAAD)
- Patriot Advanced Capability (PAC) 3, Increment 2
- Patriot Advanced Capability (PAC) 3, Increment 3

The MATDEV, with active participation by TRADOC user representatives, shall require the contractor to develop and/or update all training subsystems. Subsystems shall include, but, are not limited to, individual and collective task analysis, the embedded training system, NET (including Instructor and Key Personnel Training and Staff Planners Courses), and TADSS. The training subsystems support NET, institutional, and unit sustainment/operational training. The training subsystems shall be developed concurrently with the system Mission Command component hardware and software, validated during system Operational Testing, and will be in place when each element of an AIAMD Capability is fielded. Service schools other than USAADAS and the Cyber CoE may be affected by the fielding of AIAMD Mission Command components. Training products and devices shall be operated in an environment typically found in both the institution and unit. The Officers, Warrant Officers, Operator/Maintainers and repairer courses must utilize these devices and products as well as units. The MATDEV will determine the size and makeup of the NET team, based on system fielding numbers and unit force structure. The DTT team members will be determined by USAADAS as defined in paragraph 5.3.

NET will start as soon as the unit receives their equipment. The instructors will have the following available for instructor and key personnel training (I&KPT) and NET: training modules in Training Development Capability (TDC), Software Operation and System Administration Course, IBCS EOC Operation and Maintenance Course, Instructor-led student training material CD (including software users manual (SUM), technical bulletins, instructional media package, instructional performance requirements document, training test support package, and quick reference guide. These course materials support the fielded units in their individual, collective, and sustainment training programs.

The MATDEV provides training modules which includes all lessons and resources required to instruct maintenance of the system software and hardware. The course materials developed are shelter, system, plug & fight kit, and integrated fire control network (IFCN) relay maintenance modules. During NET, Soldiers will receive training on internal system components, preventive maintenance checks and services (PMCS), and remove and replacement procedures to restore the system to an operational status.

5.2 Displaced Equipment Training (DET)

Not Applicable

5.3 Doctrine and Tactics Training (DTT)

Doctrine and tactics training (DTT) provides the guidance to commanders, leaders, staff, and operators on how to employ and sustain the combat capabilities of new or improved AMD equipment, systems, or organizations. The requirement for DTT is based on current AMD doctrine and tactics. Directorate of Training and Doctrine (DOTD) determines the training required for DTT upon receiving the NETP. The MATDEV provides the NETP, NET, course materials, and the presentation of NET courses. TNGDEVs reviews and provides input to the new equipment training plan (NETP) through Army Modernization Training Automation System (AMTAS). TNGDEVs from DOTD will execute DTT. The personnel required to conduct DTT are civilians (GS-11 or above) and Soldiers (E-7 or above) from the Doctrine, Officer/Enlisted MOS, and Unit Training Branches of DOTD. DTT provides information on how to employ the improved system to accomplish its wartime mission. Size of the team may vary depending on unit type, echelon, mission, and resources available. Resources for training include training support packages (TSP) on IBCS equipment, as well as, training devices enhanced with a common set of operational and user interfaces that look, feel, and function like actual system equipment. Training support packages facilitate maintenance and sustainment of Warfighter skills. In addition to system/organization specific DTT, Soldiers will be provided the necessary instruction to enable them to maximize the capabilities of their system/organization while fully participating in Integrated/Joint AMD operations as an effective member of the AIAMD.

5.4 Training Test Support Package (TTSP)

The TTSP is updated prior to each operational test (limited user test, initial operational test (IOT), and follow-on operational test and evaluation (FOTE) during system development, or as required by the test and evaluation master plan (TEMP) or outline test plan (OTP). TTSPs are primarily used during development testing (DT) and operational test (OT) prior to the full-rate production (FRP) decision review (DR). The initial TTSP consists of the draft STRAP, certification plan, and training data requirements. The initial submission is due to the test agency 18 months prior to IOT. The final TTSP is prepared following I&KPT and receipt of the NET TSP. The final submission is due to the test agency 60 days prior to the commencement of test player training (TPT). The final TTSP contains training schedule(s), STPs, crew drill(s) or TCs, critical task lists (CTLs)/Unit Task Lists (UTLs), FMs/ATPs, program of instruction (POI) which include lesson plans, and STRAP which includes a list of TADSS, target audience description, ammunition, targets, and ranges required for training.

6.0 Institutional Training Domain

The institutional training domain includes Army centers/schools that provide initial training and subsequent Professional Military Education (PME), and functional training for Soldiers and military leaders. Operational assignments integrate individuals into a team and build on the foundation of individual skills learned in institutions. Individual learning is implemented primarily in the institution. Individual learning prepares individual Soldiers to perform critical tasks and apply leader competencies that ultimately support their unit Mission Essential Tasks (METs). The institutional training domain also provides training support products, information, and materials needed by individuals for self-development and by unit leaders in the operational training domain to accomplish training and mission rehearsal/assessments. They manage risks without degrading essential learning requirements. The institution ensures use of valid feedback critical to providing relevant, efficient, effective, and current instruction. The classroom experiences are collaborative, problem-solving events led by instructors/facilitators who engage students to think and understand the relevance and context of what they learn. The institution effectively uses social media, games, digital applications and emerging technologies in the operational environment by incorporating these technologies into institutional training and education. The institution integrates learning strategies and develops learning products that provide a broad contextual understanding of national security issues and the role of senior leaders to ensure success at the strategic level.

6.1 Institutional Training Concept and Strategy

The MATDEV will conduct new equipment training (NET). The Directorate of Training and Doctrine (DOTD)will red line crew drills and gunnery tables at the customer test (CT) (formerly force development experiment (FDE)) and again at limited user test (LUT). Contractor developed training material will be delivered to DOTD in a timely manner prior to scheduled Limited User Test (LUT), and I&KPT events for observation and oversight. The MATDEV should provide training material to be used for curriculum development, such as: Interactive Electronic Technical Manuals (IETM), Graphic Training Aids, any Web-based instruction, and courseware used during NET and I&KPT events are critical in initial Program of Instruction (POI) development when available. First unit equipped (FUE) is scheduled for 3QFY17. A personnel development skill identifier (PDSI)(C3D)will be awarded to Soldiers completing NET for Integrated Battle Command System (IBCS). FCoE requires XX IBCS TADSS that interface with improved TADSS to support institution training. FORSCOM units require XX IBCS TADSS that interfaces with current TADSS to support unit training. Civilians, military instructors, and contractors will conduct courses for all current and future ADA MOSs.

US Army Fires Center : The institutional training base (ITB) at Fort Sill will begin FY22. The replacement training will start at an acceptable time after FUE due to availability of equipment and fielding complexities . TR 350-70 supports exceptions to this policy that include: systems fielded in such low densities over an extended fielding schedule that it does not warrant beginning institutional training until a significant density level is achieved and NET or unit sustainment TSP will be used in the interim. The authoring of Additional Skill Identifiers (ASIs) is undecided at the present time due to cost effectiveness, fielding plans, and Human Resource Command (HRC) ability to track Soldiers based on ASIs. A requirement to realign the current MOS structure is also undecided and not yet approved by leadership. Changes to the institutional programs will be performed if required utilizing the Analysis, Design, Development, Implementation, and Evaluation (ADDIE) process as outlined in TR 350-70. Analysis may result in adding IBCS tasks/modules into existing courses. There is no initial indication that any stand-alone IBCS courses will be required at this time. The proponent will also make the necessary and appropriate changes and revisions in doctrinal products. Institutional Training domain requirements, as outlined in the matrix in paragraph 6.1.1.3 of this

STRAP document. The (ITB) will use TADSS to train common Warfighter machine interface (CWMI) software. IBCS TADSS will have the capability to host other platform software to its menus in order to train the roles and responsibilities. IBCS is fielded to AAMDC, ADA Brigade, ADA BN, ADAM Cell, Patriot, THAAD, IFPC Intercept Multi Mission Launcher (MML) during FY20-22 time period, National Capital Region (NCR), and Sentinel formations. NET and I & KPT will be delivered and TSP s will be a key part of the initial training foundation.

US Army Reserve Component and National Guard School: IBCS will be fielded to the National Guard's AAMDC, ADA Brigade, ADAM Cell, and the Regional Training Institute (RTI). The RTI requires XX IBCS server stacks that will interface with improved TADSS to support institution training for 14Gs and 14Ss and IBCS server stacks to support unit training. Unique RC/NG requirements for the RTI will be determined by the USARC/NG headquarters or the National Guard Bureau (NGB). The PM should resource and deliver workstations and associated equipment to support RC/NG institutional training requirements. NET and I&KPT will be delivered and TSPs will be a key part of the initial training foundation. The PM should provide units with associated training material that will include but not limited to: on-site trainer capability, training support packages that includes: lesson plans with power point slides, and any multimedia that was developed to train and educate leaders and Soldiers.

US Army Cyber Center: The CyberCoE analysis of the Integrated Fire Control Network (IFCN) is still pending proponent decision of the capability and task ownership. It can be assumed that 25Q series will be the likely audience with support from the 14 series.

ITB Incremental Approach Methodology: The IBCS is expected to be fielded in the ITB starting on or about FY20. This will begin with a PLT EOC to support the C2 tasks for the MML fielding and gradually expanding at a rate to pace the institutional student throughput until completely fielded on about FY28. The next section describes the decreased and increased C2/MC capability requirements. IBCS capability challenges legacy training methodologies for the Air Defense school institutional training base. A shift in training methodology and institution charter is critical to fully train and indoctrinate IBCS into the three (3) domains: Institutional, Operational, and Self-development. Both the FCoE and the Air Defense School agree the path to success is :

New Equipment Training Team: NET will be conducted for identified BNs beginning in FY18. NET will continue throughout the total fielding in the operational force structure through FY28. The PM will have the option of sustaining IBCS knowledge in the units after NET is complete by, but not limited to: on-site trainer capability, training support packages that include: lesson plans with power point slides, and any multimedia that was developed to train and educate leaders and Soldiers.

TADSS Proof of Principle: The first prototype AIAMD TADSS lab will be fielded to the ITB for proof of principle before any other labs can be built. Prior analysis has proven that the use of TADSS in training environments are highly recommended and acceptable.

Phase 1 : Begin fielding the ITB at or around FY20-21 with agreed upon and approved equipment, and include but not limited to: an Engagement Operation Center (EOC), LABs, Part Task Trainers (PTT), and TADSS to support MML fielding to FCoE, 30 th Brigade, and 2-6 ADA BN. This will require (XX) labs in a said location to conduct training for AIT (14A, 14G, and 14P), PME, and Functional Leader Development for (XX) Soldiers and Leaders. The numbers can increase based on other Brigade training requirements during this time period, and shifts in operational fielding that impacts replacement Soldier authorizations.

Phase 1a : The current agreed upon fielding strategy is two (2) Patriot battalions per year through FY21-22. This is considered the ideal time for digressing legacy requirements and increasing IBCS training requirements. Analysis for IFPC Inc 2-I (MML) is incomplete and ongoing, however; it can be assumed that an EOC or training lab(s) will be required at the institution for support and weaponry integration, which is critical to training and course outcomes. Student throughput would be a driver for quantity of training labs.

Phase 2: FY22, approximately 9-10 BNs have been fielded with the IBCS capability.This is the conversion point in which EOCs and training labs are increased significantly due to IBCS population growth in the operational force. The analysis for increased student throughput for AOC (14A) and MOSs (14E, 14G, 14H, 14P, 14T, 140A, and 140E) will dictate the amount of required training capability necessary to train and educate AMD Soldiers in the institution. A functional alignment of current

MOSs is being discussed, and is pre-decisional at this time. Technology and elevated resource constraints, facility availability for complex training, and the continual growth of education requirements, have driven us to analyze a functional MOS alignment strategy. The initial analysis of this strategy suggests that it is achievable with a shift in traditional cognitive and conceptual methodologies.

Phase 2a: The preponderance of the force is expected to cap around FY22-23.This phase is a continuation of the ITB fielding until FY28 with classroom and LAB modification to existing structure. Current traditional LABs are continuing to decrease while the IBCS capability structure increases during this phase of fielding. The ITB will maintain some traditional capabilities to support the Foreign Military Sales and International Military Student population.

PRE-DECISIONAL Functional Alignment Strategy: USAADAS, TCM AAMDC, Office, Chief Air Defense Artillery (OCADA), and DOTD has analyzed a possible functional alignment of the current MOSs: 14E, 14G, 14H, 14P, 14T, 140A, and 140E. The future MOSs would decrease for enlisted Soldiers to four (4): Air Battle Management (ABM), Integration Operator, Launcher Operator, and Radar Operator. There is reasonable impacts on Officers and Warrants in this functional alignment strategy, however, that could change during further analysis of personnel impacts and future capabilities CT and LUT. The Nation Guard analysis could prove this strategy unachievable through other methodologies, requirements, and mission sets. The National Guard's structure is unique and currently has one (1) AAMDC, seven (7) Avenger Battalions, and the RTI that trains Advance Leader Course (ALC), Senior Leaders Course (SLC), 14Gs and 14Ss respectively. Guidance in the One Army School System (OASS) standardization of education and training schools regardless of component challenges a functional alignment strategy. Reference AR 350-10 dated 2009. Early brain storming analysis indicates a possibilty that it might be achievable after further indepth analysis within DOTMLPF domains. See chart below:

Function Aligned	Current AOC	2LT-1LT	CPT	MAJ
AMD Commissioned Officer	14A	ABM Operations	AMD Top Gun	AMD Electives

Function Aligned	Current MOS	WO1-CW3	CW4-CW5
ABM/Fire Direction	140E	AMD Operation	AMD JIIM Operation
Interface Control	140A	Tactical Planning/Link Integration	Operational and Strategic Planning/Link Integration
Maintenance	140E	AMD Maintenance	AMD Logistics

Function Aligned	Current MOS	Skill Level 1-2 AIT	Skill Level 3 ALC	Skill Level 4 SLC
Air Battle Management (ABM)	14E/14G/14H/14S/14P	Threat ABMs	AMD ABMs	ABM MDMP
Integration/Surveillance Operator	14G/14H	Army Integration	Joint Integration	Link MDMP
Launcher Operator	14P/14S/14T	MO&E & Reload	Launcher Employment/Maintenance	Launcher MDMP
Radar Operator	14E/14G/14H	Radar MO&E	Radar Employment/Maintenance	Radar MDMP

6.1.1 Product Lines

The MATDEV provides the IBCS NETP, Basis of Issue Plan Feeder Data (BOIPFD), NET TSP, TADSS, I&KPT, and NET to the training developer to produce DTT and TTSP. The proponent will incorporate the new IBCS courses into initial military training (IMT) and professional military education (PME) at the institution. The training developer posts the education/training products to local and global network for dissemination to institution, operational, and self-development domains.

6.1.1.1 Training Information Infrastructure

The MATDEV and the TNGDEV uses the Army Modernization Training Automation System (AMTAS) to develop the NETP.

AMTAS data base is a centralized system for the development and processing of NETPs that will be used to train personnel on new/improved equipment being fielded. The system covers all aspects of training; providing the answers to questions of who, what, when, where, how, and cost amount. AMTAS is used by HQDA, HQ AMC, major subordinate commands of AMC, HQ TRADOC, all TRADOC schools/integrating centers, AMMED, ACOMs, and subordinate commands throughout the Army.

The MATDEV and the TNGDEV use the Army Learning Model to develop the products for a learner-centric environment, supported by an adaptive development and delivery infrastructure that enables unit and self-development training. The focus is to produce leaders and forces which exhibit a high degree of operational adaptability, and can think critically and act ethically. The collaborative adult learning environment is non threatening; mistakes can be made as students weigh courses of action and as the facilitator guides the group to recognize better solutions. The model increases rigor and relevance through frequent learner assessments to maintain standards and remediation is applied when needed.

The TNGDEV uses the Army Learning Policy and Systems (ALPS) to develop and export training/education products. The process for developing Army learning products is analysis, design, development, implementation, and evaluation (ADDIE). The TNGDEV uses Training Development Capability (TDC) to manage, develop and export training/education products. The TNGDEV uses the STRAP writing tool to develop and export STRAPs.

TDC will provide a consolidated training product development and storage capability, with all proponents developing and sharing products in a single database. TDC training products include individual and collective tasks, drills, STP, lesson plans, courses, POI, course administration document (CAD), CTL, and UTL. TDC will meet the operational need to provide current, standardized training products to Soldiers, units and training development agencies using the Army Training Network (ATN) and the Digital Training Management System (DTMS).

6.1.1.1.1 Hardware, Software, and Communications Systems

The interconnected local and global network infrastructures such as the Army Training Network (ATN) facilitate the dissemination and delivery of training support information. Army Training Network (ATN) is an online tool designed for trainers and educators to provide best practices, a database and hub for training solutions and collaborative tools such as a Blog and Battle Command Knowledge System forum.

6.1.1.1.2 Storage, Retrieval, and Delivery

The institutions, units, and individuals will use Official Department of Army (DA) publications and forms to access approved FM, ATP, STP, and TC for IBCS. Official Department of Army (DA) publications and forms are managed by the Army Publishing Directorate (APD) under the direction of the Administrative Assistant to the Secretary of the Army (AASA). The Army uses the latest publishing technologies to produce high-quality, enhanced, electronic publications and forms. Training products being stored on the Central Army Registry (CAR) and within the Training Development Capability (TDC) database program, the Distributed Learning (DL) repositories, and the Army Learning Management Systems (ALMS) will be used within the institution, operation, and self-development domains. Additional access to courseware will be available through the Army Training Network (ATN).

6.1.1.1.3 Management Capabilities

The units will use Digital Training Management System (DTMS) to access approved STP, UTL, and TC for IBCS. DTMS, an Army program of record, is a web-based planning and management tool that facilitates an organizations ability to plan, schedule, resource, record and report individual and collective training in units, brigade and below.

6.1.1.1.4 Other Enabling Capabilities

The institutions, units, and individuals will use AKO to access approved FM, ATP, STP, and TC for IBCS. AKO provides web-based enterprise information services to Army, joint, and DoD customers. Enterprise services are provided to those customers on both classified and unclassified networks, and include portal, e-mail, directory, discovery, and single sign-on functionality. All members of the Active Duty, National Guard, Reserves, DA Civilian and select contractor workforce have an account which grants access to Army web assets, tools, and services worldwide.

6.1.1.2 Training Products

The following are outputs of the training development process: IMI, NET, I&KPT, FMs, ATPs, UTLs, CATS, TCs, CTLs, STPs, and POIs.

6.1.1.2.1 Courseware

The MATDEV will provide the following IBCS Courses. The titles are IBCS Software Operation and System Administration Course (Level 3) with 12 delivery hours and IBCS EOC Operation and Maintenance Course (Level 3) with 8 delivery Hours. The courses support NET, I&KPT (proponent school I&KPT), individual institutional training, collective training, and unit sustainment training.

6.1.1.2.2 Courses

IBCS impacts the following institutional courses:

2-44-C20B	ADA Basic Officer Leader-Branch
2-44-C23	Air Defense Artillery Captains Career-RC Ph1
2-44-C22	Air Defense Artillery Captains Career Ph2
2G-F25	ADA Pre-Command
2G-SI/ASIT4	ADA Fire Control Officer
2F-SIT5/4F-ASIT5	Patriot Top Gun
043-ASIT4	Patriot Master Gunner
043-14E10	Patriot Fire Control Enhanced Operator/Maintainer
043-14G10	Air Defense Battle Management System Operator
043-14H10	AD Enhanced Early Warning Operator
043-14T10	Patriot Launching Station Enhanced
4F-140A	Command and Control Systems Integrator WOBC
4F-140E	Patriot System Technician WOBC WO Basic Operator/Maintenance
2-44-C32-140A	ADA Warrant Officer Advance Course
2-44-C32-140E	ADA Warrant Officer Advance Course

6.1.1.2.3 Training Publications

The following publications require development due to the IBCS:

Doctrine

- FM 3-01   US Army Air and Missile Defense Operations
- ATP 3-01.9   Air and Missile Defense Battalion Techniques
- ATP 3-01.48   Sentinel Platoon Techniques
- ATP 3-01.85   Patriot Battalion Techniques
- TC 3-01.86   Patriot Brigade Gunnery Program
- ATP 3-01.87   Patriot Battery Techniques
- TC 3-01.31   JLENS Battery Gunnery Program
- ATP 3-01.31   JLENS Techniques
- ATP 3-01.64   Avenger Battalion and Battery Techniques
- ATP 3-01.7   ADA Brigade Techniques
- ATP 3-01.50   Air Defense and Airspace management Cell Techniques
- ATP 3-01.94   AAMDC Techniques
- TC 3-01.50   ADAM Cell Gunnery Program
- TC 3-01.63   Avenger Gunnery Program

Training Combined Arms Training Strategy (CATS)

- AMD Battery (Patriot) 44647G000
- Air Defense Artillery: HHB AMD Battalion(Patriot/Meads) (44636G000)
- Air Defense Artillery: AMD Battery (Avenger) (44648G000)
- JLENS (TBD)

Training Crew Drills - Training Circular (TC)

- TC 44-635-13, Battery IBCS
- TC 44-635-12, Battalion IBCS

Patriot Technical Manuals

- System Description Configuration 3   9-1425-1600-12
- WCC Intermediate Maintenance   9-1425-1600-34-5
- Diagnostic Mandatory Parts List   9-1425-600-24P-2
- ECS Shelter General Maintenance Configuration 3   9-1430-1600-34
- ECS Operator Configuration 3   9-1430-1600-10-1
- ECS Operator Configuration 3 (DAM)   9-1430-1600-10-2
- ECS Organizational Configuration 3 (FI)   9-1430-1600-20-1
- ECS Organizational Configuration 3 (R&R)   9-1430-1600-20-2

- ECS Organizational Configuration 3   9-1430-1600-20-3
- ECS Configuration 3 Parts   9-1430-1600-24P-1&2
- PATRIOT System LOAP   9-1425-600-L
- Operator Trainer   9-6920-1600-14

Air and Missile Defense Planning and Control Systems (AMDPCS)

- TM-11-5895-1986-13&P
- EM 0335

6.1.1.2.4 Training Support Package (TSP)

The TSP shall be multimedia based and include POIs, lesson plans, technical manuals, diagnostics, student and instructor guides, a course management plan, and any other training support products necessary to conduct an effective and efficient sustainment/ operations training program. The TSP shall include a tutorial "how to" module that permits identification of Soldier training proficiency by module.

6.1.1.3 TADSS

The proponent institution requires training aids, devices, simulators, and simulations (TADSS) and an ET capability to support training. The below matrix further defines the types of TADSS required for support, the basic function of each and projected fielding location.

Training Devices and Total Quantities

Equipment TADSS	Institution	RTI
AIAMD Reconfigurable Table Top Trainer (RT3)	TBD	TBD
IBCS Server Stack	TBD	2
Institutional System Trainer	TBD	TBD
Embedded Training S/W Capability (Engagement Operation Center, EOC)	26	TBD
Cognitive Air Defense Training Set (CAD-TS)	1	0
Institutional Maintenance Trainer (IMT)	TBD	TBD

Chart Rationale: Evolving requirements will be determined based on testing and facility detailed study. An expectation is that the operational units (Battalion, Brigade, and Army Air and Missile Defense as well as Maneuver Training Centers (MTC) will receive TADSS beyond ET upon development once fielding schedule is codified.

The Institution's IBCS capability and server stacks should be strategically located to support the total training throughput of the Institution, this includes: Initial Military Training (IMT), Professional Military Education (PME), Foreign Military Sales (FMS) Customers, and Functional

Training requirements.

The PEO/PM is responsible for the development, integration, test, and funding of all TADSS/ET and will fulfill all responsibilities IAW AR 350-38, LOGSA Pamphlet 700-3, Total Package Fielding; AR 700-142, Materiel Release, Fielding, and Transfer; and DA Pamphlet 700-142, Instructions for Materiel Release, Fielding, and Transfer.

The MATDEV will support the training equipment and TADSS life-cycle maintenance. The life-cycle maintenance support includes, but is not limited to, upgrade, revision, and repair of hardware/software. The life-cycle maintenance will include any training material changes due to upgrades, revision, and repair of hardware/software. The MATDEV will obtain TRADOC TADSS classification and number designations prior to distribution.

All active simulations and simulators will be Distributed Interactive Simulation/High Level Architecture (DIS/HLA) compliant. Program Executive Office for Simulation, Training, & Instrumentation (PEO-STRI) will be contacted to consider modeling the effects for ADA specific and general force virtual, constructive and gaming applications.

The institutional training at the proponents and field units will require a variety of TADSS and ET to support the training program. ET, as the key element of the ASoS training architecture, shall support training, assessment, and control of exercises on the operational equipment, with auxiliary equipment and data sources, as necessary. ET capabilities will be employed for institutional and sustainment training and as aids in teaching collective tasks during tactical operations and joint/unit training exercises. Embedded Training, when activated, starts a training session, or overlays the system normal operational mode, to enter a training and assessment mode. Embedded training is essential in the development of systems and organizations.

Below is a list of current IAMD PO/CDID/30th BDE requirements as determined by the ADA proponent. There are ongoing WGs between FCoE and PM AIAMD to make the final TADSS requirement determination.

- AIAMD TADSS must be 100% compatible with the RT3 hardware and software and host all present software programs that the RT3 currently runs.

- TADSS must be DIS/HLA compliant.

- TADSS must have reach back ability with the CAD-TS, SIPR over IP.

- TADSS must have user friendly scenario generation ability at the ITB and fielded units.

- TADSS must be able to conduct both individual and collective training in any combination of each.

- TADSS must not interfere with tactical operations or readiness/availability.

- TADSS must be a separate device from the tactical equipment.

- TADSS must have an artificial intelligence (AI) ability on workstations (WS) to replicate any station or stations that are not physically manned during an air engagement battle.

- Training scenarios must have the ability to be started and stopped, reviewed, played back, critiqued all at adjustable speed settings.

- TADSS scenarios must be graded by module and have a retesting component.

- Training scenarios must have the ability to be start, stop and rewound scenarios during an exercise.

- Training scenarios must have the ability to insert system faults during an exercise.

- Instructor Station (IS) must have the ability to see each Student station(SS)individually or in a group. This may require a larger than standard for the IS display. IS must have the ability to take over one or all SS for demonstration and student help.

- TADSS must have VOIP to each SS for cross talk and Instructor input and guidance. All audio must be recorded and be capable of playback.

- TADSS must have the ability to train with other tactical units via SIPR.

- All system tracks must be modeled with accurate capabilities.

- Instructor must have the ability to change the track data from their IS on the fly. TBM vs aircraft (AC) the track shows up as a TBM but then switches to an aircraft type track. Rational for this if a track is miss labeled for whatever reason the student must recognize the flight profile of the target vs what is shown on their display along with knowing what a potential adversary has in his inventory.

- All TADSS hardware and software must be upgraded during the same time period as any tactical upgrades to AIAMD.

6.1.1.3.1 Training Aids

Training Aids will be determined and developed during NET development and be available for NET if necessary. The NET team will have to certify before they can begin training in the institutional or operational training domains.

6.1.1.3.2 Training Devices

PM Analysis for training devices is currently ongoing and will require extensive indepth knowledge and research to define requirements to develop.

6.1.1.3.3 Simulators

AIAMD Reconfigurable Table Top Trainer (RT3)

The RT3 will train engagement and force operations, including beyond visual range engagements (BVRE), utilizing real or simulated connectivity to other RT3s for use in a Live, Virtual, or Constructive (LVC) training environment, depending on capabilities of the system(s) represented and for which configured. The RT3 will support training on system critical tasks for common Air and Missile Defense (AMD) mission command nodes, and other future systems. The RT3 must provide performance oriented training to the maximum extent possible. All tasks learned on the trainer shall be directly transferable to the tactical equipment. Any RT3 must be able to act as a controller/simulation driver for multiple collocated RT3s; be able to monitor operator actions and provide an after action report (AAR) for feedback, and training instructor/training developer analysis. The RT3 must have the means, i.e, Voice Over Internet Protocol, to provide communication capability, i.e, Secure Internet Protocol Router (SIPR) Chat, on a network, and with other RT3s and simulators . The RT3 must have the built-in capability to do scenario scripting, generation, preview, and editing, with high-fidelity terrain modeling. The RT3 shall use a common computing platform as a core for basic functionality, with each affected system being simulated with a modular plug-in hardware and tactical software interface package to depict required switchology, displays, and operational characteristics. The RT3 shall be capable of operating in a desktop-type configuration, with no special heating or cooling requirements. The RT3 shall provide removable media storage devices for classified software; shall provide volatile memory for protection of classified data; shall provide password and permission-level access for classified data protection; shall provide purge capability for memory and classified data protection. The RT3 shall be in full compliance with Information Assurance requirements detailed in CJCSI 6510.01C, DoD Instruction 8510.bb, DoDI 8500.1, and DoDI 8500.2. The RT3 shall be compatible with, and communicate with, SE Core-, DIS-, and HLA- compatible simulations and simulators. Unit maintenance shall be CLS personnel. Maintenance will conform to the two-level maintenance concept being developed IAW AR 750-1 Policy Statement. This emerging "Replace Forward, Repair Rear" concept will reduce the forward deployed logistics footprint. This conforms to the continuing merger of "Organizational" and "Direct Support" maintenance as in Force XXI and BCT units. AMC shall be responsible for planning, programming, budgeting and executing the CLS IAW AR 700-17 for the RT3 throughout its life cycle, or its replacement if it becomes impractical or not cost effective to maintain.

Institution Maintenance Trainer (IMT)

IMT will provide a single hands-on trainer for organizational maintenance personnel. The trainer will provide for modular integration with any future system trainers. The institution maintenance trainer is a hybrid trainer merging the traditional hands on trainer with a virtual simulation of software and hardware.

Institutional System Trainer (IST)

IST software is a software application developed to operate within the improved TADSS hardware. IST is designed to provide the IBCS tactical operator with the ability to script and generate a training scenario. IST software will be a re-host of embedded training software with additional capabilities. IST will replicate the tactical performance and user interface requirements. IST software updates will coincide with the fielding of any major tactical software updates. IST software will be a requirement for one copy at both all tactical units as well as the institution with the capability to reproduce and distribute as required.

6.1.1.3.4 Simulations

Simulations analysis has not been identified currently. Further analysis and discussions is needed before a decision can be made at this time.

6.1.1.3.5 Instrumentation

Instrumentation will be available to monitor/record all ASoS common MC components Platoon/Battery/Battalion (Plt/Btry/Bn) as they enter and operate in communications nets that represent the tactical system in the training Joint netted environment equivalent to the tactical net. In order to operate with a training instrumentation system, ASoS will be compliant with the Army Common Training Instrumentation Architecture (CTIA) and the following instrumentation systems:

- Embedded training (ET) instrumentation
- Homestation Instrumentation Training System (HITS)
- Joint training instrumentation
- Combat training center (CTC) instrumentation
- Other services instrumentation
- OneTESS
- Joint Pacific Multi-National Readiness Capability Instrumentation System (JPMRC), Hawaii
- Mobile Instrumentation System (MIS), Hohenfels, GE (Deployable IS associated with the CTC Joint Multinational Readiness Center (JMRC)

6.1.1.4 Training Facilities and Land

The program requires facility modifications for identified buildings in the institution domain as well as the RTI.

6.1.1.4.1 Ranges

Not Applicable

6.1.1.4.2 Maneuver Training Areas (MTA)

Not Applicable

6.1.1.4.3 Classrooms

Classroom XXI (Category Code 17136) CR XXI design focuses on instructor use, instructor led training, and instructor facilitated self-paced student training. The level classroom used in these facilities is a Level 3/High Tech Room. It is an open architecture, standards compliant, fully networked multimedia classroom with interpretable Video Teletraining (VTT), internet access, installation networked with full distance learning capability. The space requires two video projectors and two 3048 mm [10 ft] wide motor operated projection screens. For ease of viewing and transmitting, other CRXXI technologies are used in favor of marker/integrated white boards. The instructor workstation and projection screens are located at the front of the room. An unobstructed view to the front of the room by all students is required. The instructor has digital access to each student computer. The instructor station has a computer, document camera, projector control, lighting and a sound system. Each student must have a networked computer on a desk. Rooms are generally square in plan with a wall at least 9144 mm [30 ft] long is optimal. A communication rack is required for the VTT function in each classroom. For renovations, the rack is often in an alcove leading into the room while in new construction it is usually in a closet within the room. This criterion uses a 20-24 person classroom, which has been most common to the Army and very successful. Larger Classroom XXIs may be used in coordination with TRADOC.

6.1.1.4.4 CTCs

The IBCS training architecture must integrate the individual, operational and self-development training domains into a near-seamless training environment that must envelope and nurture AMD Soldiers and leaders for their entire career. The interlinked training domains require a networked SoS that supports the institution, Joint Training Centers (JTC), Combat Training Centers (CTCs), and unit, including home station and deployed operational theaters.

6.1.1.4.5 Logistics Support Areas

Not Applicable

6.1.1.4.6 Mission Training Complex (MTC)

None identified at this time.

6.1.1.5 Training Services

When the MATDEV fields hardware/software upgrades to the IBCS, they will update the embedded trainer, maintenance trainer and NET TSP. DOTD will use the NET TSP to develop the TTSP. AMCOM maintains and repairs equipment of USAADAS. DPW maintain and repairs facilities of USAADAS. PEO-STRI maintains and repairs TADSS of USAADAS.

6.1.1.5.1 Management Support Services

When the MATDEV field hardware/software upgrades to the IBCS, they will update the NETP, NET, technical manuals, and interactive multimedia. The training developer will update the UTLs, TC, CATS, CTLs, STPs, TSPs and POIs based on the education/training products recieved from the material developer.

6.1.1.5.2 Acquisition Support Services

Army Program Executive Officers (PEOs) and Program Managers (PMs) establish a continuing relationship with the Program Executive Office for Simulation, Training and Instrumentation (PEO STRI) throughout the acquisition life-cycle of system TADSS. PEO STRI will work with all PEOs and PMs as they ensure effective and cost efficient execution of TADSS acquisition programs. System PEOs and PMs retain authority and responsibility for the procurement and life-cycle management of their system TADSS. Commander will not procure TADSS solutions or gaming technologies for training without prior coordination with TRADOC, who will ensure synchronization with validated Army doctrine, training, strategies and interoperability with existing and planned TADSS. Coordination is necessary to ensure standardized training environments exist across the Army, eliminate unnecessary duplication and allow for logical sustainment, integration, and synchronization of planning and execution of ADA capabilities by the supported command in a JIIM environment.

6.1.1.5.3 General Support Services

Army PEOs, PMs, Army Material Command (AMC), Life cycle management command (LCMC), and PEO for PEO-STRI work together on the most effective and efficient manner for execution the TADSS sustainment for each specific system.

6.1.2 Architectures and Standards Component

The institution mission is to develop challenging training programs for U.S. personnel that will produce leaders who are technically and tactically proficient; provide ADA units with doctrine, organizations structured to support the full range of Army operations and superior weapon systems enabling them to achieve decisive victory.

The IBCS training architecture must integrate the individual, operational and self-development training domains into a near-seamless training environment that must develop and nurture AMD Soldiers and leaders for their entire career. The interlinked training domains require a networked SoS that supports the institution, Joint Training Centers (JTC), Combat Training Centers (CTCs), and unit, including home station and deployed operational theaters. The advantage of networked live, virtual, constructive, gaming - Integrated Training Environments (LVCG-ITE) is that it allows for the interlinking of the current, stove-piped training applications. The LVCG-ITE must support AMD direct action training for the Soldier on-demand, anywhere or anytime. The goal is a near-seamless integration of training environments to more realistically replicate the operational environment. The resulting end-state is a direct action training environment that replicates the operational environment and provides a dynamic, standards-based training environment to support direct action national security requirements.

6.1.2.1 Operational View (OV)

The MATDEV provides instructional performance requirements document (IPRD), NETP, basis of issue plan feeder data (BOIPFD), New Equipment Training Test Support Package (NETTSP), interactive electronic technical manuals (IETM), NET, and I&KPT to the New System representative of Directorate of Training and Doctrine (DOTD). New System representative coordinates NET and I&KPT with the MATDEV, DOTD, and United States Army Air Defense Artillery School (USAADAS). The combat developer provides the concept of operations (CONOPS) to the New System representative. The New System representative provides the documents to the Analysis, Doctrine, Unit Training, Officer Development, and Enlisted Develop Branches of DOTD. The Analysis Branch develops the individual critical task list (ICTL) and the STP. The Doctrine Branch develops FMs, ATTP, and doctrine and tactics training (DTT). The Unit Training Branch develops collective task (CT), TC, UTL, and CATS. The Officer and Enlisted Development Branches develops the individual training plan (ITP), course administrative data (CAD), POI, and course management plan (CMP). The education/training products are provided to the New System representatives which are the contents of the TTSP. The New System representative submits the TTSP to combat developer then forwards to Army Test and Evaluation Command (ATEC) then test unit.

Army Integrated Air and Missile Defense
OPERATIONAL CONCEPT GRAPHIC (OV-1)
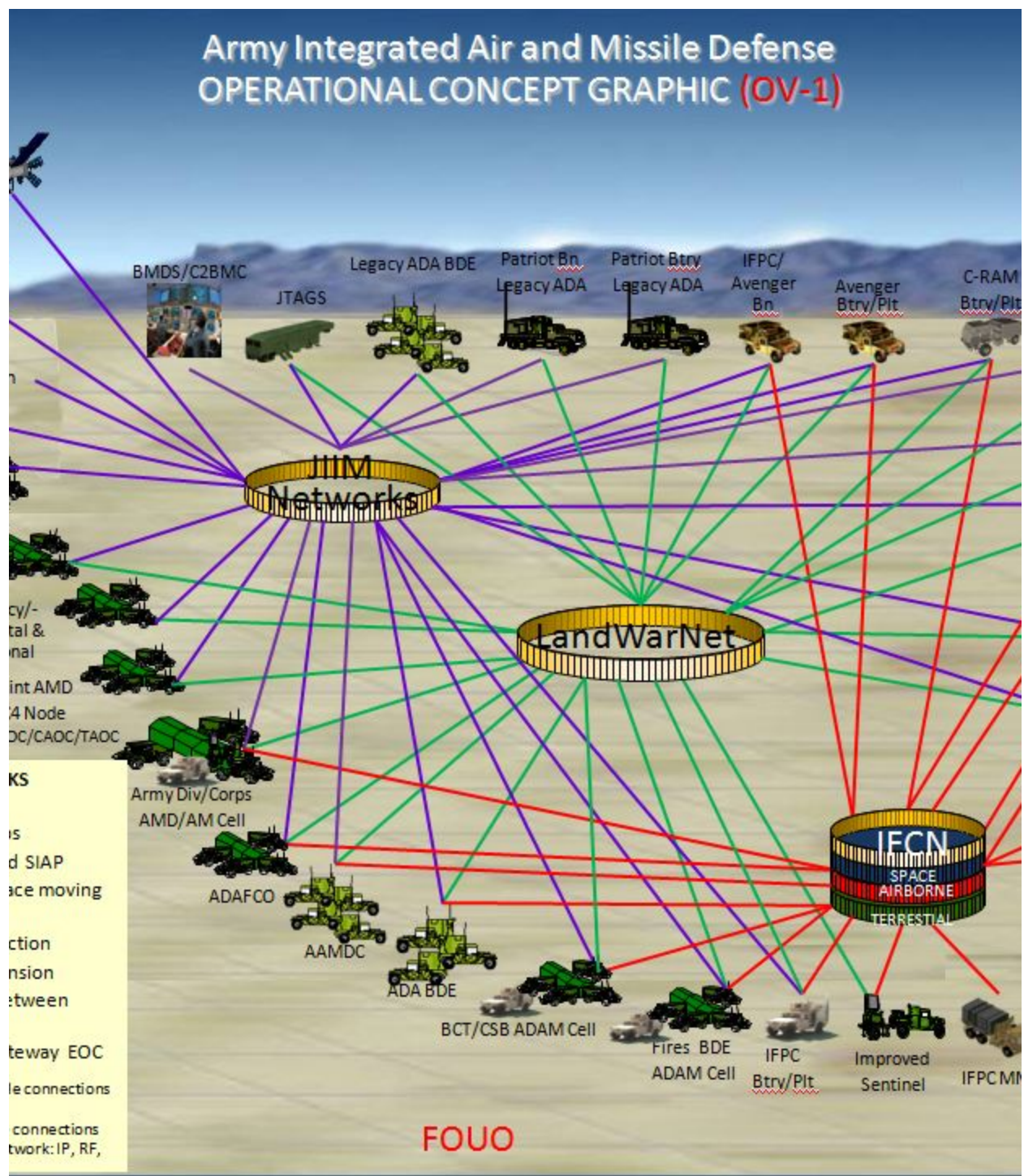
OV1 Ins

6.1.2.2 Systems View (SV)

The TNGDEV identifies all the specified, implied and supporting missions that must be performed by a unit and the collective tasks that must be performed to accomplish those missions. New/modified collective task(s) impacts: crew drill candidates list, collective task summaries, and individual task lists. Crew drills originate from collective tasks, or task steps, identified during the collective task analysis phase of collective training development. Whether they are developed into drills depends on the relative criticality, in terms of cue to action time; time to execute and consequences of execution; and how frequently tasks and/or steps are performed. Collective task summaries originate from collective tasks. Collective task summaries provide the task performance details (e.g. condition, standards, performance steps, and performance measures) needed to develop efficient and effective unit training. The TNGDEV must identify the individual task(s) to perform to complete the collective task to the prescribed standard.

The TNGDEV identifies the collective tasks developed to produce the UTL. CATS originate from the collective tasks of the UTL. The TNGDEV determines which collective tasks logically trained together to achieve a progression appropriate by echelon.

Individual task summaries originate from individual tasks. Individual task summaries provide the task performance details (e.g. condition, standards, performance steps, and performance measures) needed to develop efficient and effective unit training. The TNGDEV identifies the individual tasks developed to produce a STP.

The TNGDEV identifies the critical tasks, performance measures, and the supporting skills and knowledge to support the POI.

AIAMD SoS Interface Description
SV-1 External
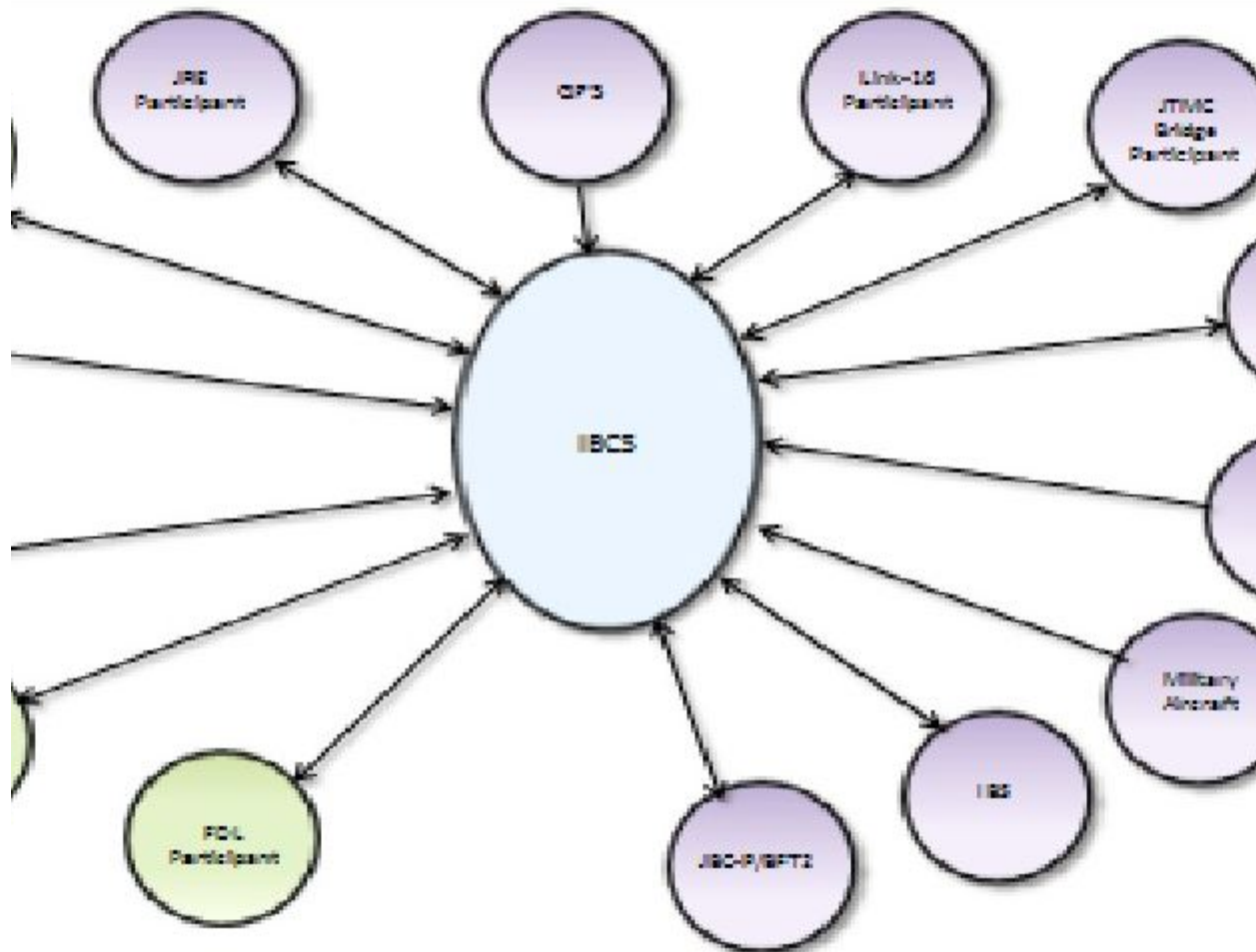
SV for the Institution

6.1.2.3 Technical View (TV)

Listed below are a set of rules used to meet requirements and ensure developer can adequately plan for evolution:

- Joint Technical Architecture Army (JTA-1 & JTA-2) is used to support Top Gun and ADA Fire Control Officer (ADAFCO) Courses
- Common operating environment (COE) course from TRADOC is presented to officers and warrant officers
- DOTD uses DA PAM 415-28 for classroom 21 specifications
- Sharable content object reference model (SCORM) is used for interactive multimedia instruction (IMI) development
- Army Regulation 350-38 is used to support TADSS acquisition and sustainment

6.1.3 Management, Evaluation, and Resource (MER) Processes Component

The following paragraphs describe the institutional MER process.

6.1.3.1 Management

The Proponent training institution must plan their training and development work IAW TRADOC Regulation 350-70, analysis, development, design implementation, and evaluation (ADDIE), and the Army Learning Model TP 525-8-2 w/C1 06Jun2011 to obtain maximum resource benefit; identify impact on unit and Soldier performance if constraints prohibit development of required training/training products; comply with budget directives, policy, and procedures; identify, prepare, and justify in clear and precise terms the development and training budget; manage analysis, product, and course design development; maintain workload requirements in the TDC resource management tool and provide data to program/product managers; provide workload data to the TRADOC Status Report (TSR) semiannually; provide Training Requirements Analysis System (TRAS) product requirements to installation TRAS manager as required; approve all locally developed course designs before staff and faculty (SF) development element fully implements the course.

The Institutional Staff and Faculty element must coordinate staff and instructor development to provide certification of instructors for all required training; develop policies and procedures to ensure that instructors are technically and tactically qualified for their instructor assignment; conduct a local SF development program that includes both TRADOC Staff and Faculty Common Training courses and locally developed courses that satisfy local training needs; use the ADDIE process and the Army Learning Model TP 525-8-2 w/C1 06Jun2011 to develop and modify local courses; train all members of the staff and faculty to perform tasks required for their specific job assignment; establish instructor recognition programs to foster professionalism; re-certify instructors (as required) through full participation in the four scored presentations, using Total Army Instructor Training Course (TAITC) instructor-approved lesson plans with regularly scheduled classes; re-certify small group instructors (as required) through successful performance demonstrated by the small group instructor that is observed and documented by a certified small group instructor; ensure all commissioned officers, warrant officers (WOs), and enlisted soldiers assigned as instructors or as TNGDEVs have completed the required courses before award of the skill identifier (SI) or special qualification indicator (SQI).

The institutional instructor/writer must demonstrate competence by showing mastery of objectives to be trained (as spelled out in instructor certification requirements for each course); fulfill all proponent requirements as appropriate TAITC, Test Developer Course, Training Evaluator Course, Systems Approach to Training Basic Course (SATBC); renew instructor certification if instructor has not taught within the maximum number of years specified for the course by the proponent; demonstrate ability to train course training objectives to chain of command.

6.1.3.1.1 Strategic Planning

- Theater Air and Missile Defense (TAMD) Mission Area (MA) Initial Capabilities Document (ICD), Joint Forces Command, 15 December 2004
- Integrated Air and Missile Defense Capability Roadmap Version 2 (IAMD Roadmap), 15 February 2007.
- Theater Air and Missile Defense (TAMD) Capstone Requirements Document (CRD), 14 OCT 03

6.1.3.1.2 Concept Development and Experimentation (CD&E)

- Homeland Air and Cruise Missile Defense of North America Joint Capabilities Document for Homeland Air and Cruise Missile Defense of North America, Version 1.0, 28 November 2005. (Classified)

- Draft Global Missile Defense Operations Joint Capabilities Document (JCD), USSTRATCOM, 2 May 2005.

- Integrated Air and Missile Defense (IAMD) Joint Capabilities Document (JCD), 21 March 2006. Version 1.0

- JP 3-01, Countering Air and Missile Threats, 23 MAR 12

- Integrated Air and Missile Defense, Joint Integrating Concept, Dec 04 (Classified)

- Army Integrated Air and Missile Defense Concept of Operations Version 1.0, March 2012

- Army Integrated Air and Missile Defense System-of-Systems (AIAMD SoS) Increment 2 Capability Development Document (CDD), 21 October 2010

6.1.3.1.3 Research and Studies

Army Integrated Air and Missile Defense System-of-Systems (AIAMD SoS) ICD, United States Army Air Defense School (USAADAS), HQ TRADOC Approved 06 February 2006.

6.1.3.1.4 Policy and Guidance

See Army Regulation 350-1, DA Pamphlet 73-1, TRADOC Regulation 350-70, TRADOC, and Pamphlet 525-8-2 w/C1 06Jun2011.

6.1.3.1.5 Requirements Generation

Listed below are documents that support program initiation and development through JCIDS:

- ICD - Initial Capabilities Document For Army Integrated Air And Missile Defense (AIAMD) System-of-Systems (SoS)23 January 2006
- CDD - Capability Development Document (CDD) for: Army Integrated Air and Missile Defense System-of-Systems (AIAMD SoS) Increment: 2 Approved: 21 October 2010
- STRAP - Army Integrated Air and Missile Defense Systems of Systems (AIAMD SoS) (version 2.0) 4 November 2009

6.1.3.1.6 Synchronization

Training development resources, manpower, and equipment will be available to support ASoS over its life cycle, following the guidance in LOGSA Pamphlet 700-3, Total Package Fielding; AR 700-142, Materiel Release, Fielding, and Transfer; and DA Pamphlet 700-142, Instructions for Materiel Release, Fielding, and Transfer.

6.1.3.1.7 Joint Training Support

ASoS will participate in appropriate joint training exercises, tactical and simulated. The ASoS Capability concept supports most, if not all, the attributes articulated in the Joint Operations Concept by: fully integrating with the Joint Force; possessing the capability to tailor forces within mission, enemy, terrain and weather, troops and support available, time available, civil considerations (METT-TC) constraints to support the combatant commands; requiring a net-centric environment fully integrated with Army and Joint forces; delivering decentralized scalable lethal effects; participating in net-centric environments linked with Joint sensors and other enablers providing information necessary to meet this attribute; providing the necessary means of lethality to destroy ABTs, ARMs, BMs, CMs, UASs, FWs, and RWs threats. The relevant range of military operations for ASoS is to support ADA direct action missions.

6.1.3.2 Evaluation

Quality Assurance office (QAO) works with DOTD and USAADAS to establish a working design and development team in order to accomplish assessment of products and development processes. Formative evaluations under this relationship would normally be conducted during the development or improvement process to optimize and validate the products prior to implementation. QAO supports DOTD and USAADAS for the HQ TRADOC Enterprise Accreditation which is conducted once every three years.

6.1.3.2.1 Quality Assurance (QA)

The action officer of DOTD, using TDC, updates and sends the completed POI to the command safety office for review of risk management integration. After receiving safety office concurrence, the action officer sends the POI to the branch chief (DOTD) and course manager (USAADAS).

QAO uses the training assessment tool-executive summary to conduct observation of USAADAS classes and provide vital feedback to improve a course.

DOTD staffs UTLs, training circulars, and combined arms training strategies, with the units. After updating the training products based on comments from units, DOTD sends the training products to Combined Arms Center - Training (CAC-T) for final quality control. DOTD has the final collective training products posted on the Fires Knowledge Network (FKN) and Digital Training Management System DTMS).

6.1.3.2.2 Assessments

Instructors of USAADAS use Fort Sill (FS) 1087 to validate a lesson plan. A lesson plan is validated after the instructor uses the lesson plan three times without major changes.

Instructors of USAADAS use FS 1087a to list comments concerning student questions, time allotment, and errors in the lesson plan content. USAADAS sends DOTD completed FS 1087a to update lesson plans in TDC annually, two weeks before the validation date of the lesson plan.

6.1.3.2.3 Customer Feedback

FCoE uses instructor and student feedback questionnaires in the course management plan (CMP) to improve the courses.

USAADAS's Battalion S-3s use the Training Assessment and Evaluation Checklist to evaluate training. Soldiers complete the AIMS Student Evaluation which provides Soldiers an opportunity to rate the block of training they have completed.

QAO sends an automated survey to each student and their supervisor six months after course graduation. Soldier and supervisor assess if the Soldier can perform the individual critical tasks for their job.

6.1.3.2.4 Lessons Learned/After-Action Reviews (AARs)

External and internal AARs, participant, and Unit feedback will be consolidated to develop lessons learned, and made available through the Center for Army Lessons Learned (CALL) information system.

6.1.3.3 Resource

The table below reflects the current estimate of funding required by fiscal year.

Program Affordability

($M, TY09)	FY15	FY16	FY17	FY18	FY19	FY20	FYDP Total
RDT&E							
Funding	330.09	194.29	122.61	97.36	31.25	27.32	772.92
UFR							
Procurement							
Funding	88.48	272.20	409.21	371.56	359.29	365.48	1,866.22
UFR							
O & M							

Funding	0.34	2.66	14.75	23.17	32.76	41.18	114.86
UFR							
Total UFRs							
Total Program Resources By FY	418.91	469.15	546.57	462.09	423.30	433.98	2,754.00

Manpower/TD							
Contractor							
Civilian Enlisted Warrant Officer							
Contractor/SPT							

CIV Pay							
Travel Per Diem	20K	20K	20K	20K	20K		
New Equipment TRNG							
TD Travel Per Diem			10K	10K	10K	10K	

Rationale: TNGDEVs are required to develop and maintain the programs of instruction and other outputs of ADDIE that facilitates and supports Army Learning Model (ALM) requirements. Military will be used in different areas within the training program. Travel/Per Diem represents cost to attend training and reviews; and for instructor/key personnel to evaluate training prior to operational testing.

Training Products							
Training Pubs	0.1K	0.1K	0.1K	0.1K			
TSPs	0.1K	0.1K	0.1K	0.1K			
STPs	0.02K	0.02K	0.02K	0.02K	0.02K	0.02K	
CATs	0.1K	0.1K	0.1K	0.1K			

Rationale: Cost to develop, revise, maintain, and the distribution of training products. These

products will be used for NET, institutional, operational, and self-development domains.

7.0 Operational Training Domain

The objectives of operational training is to support Army Force Generation (ARFORGEN) by providing a training support system (TSS) that enhances the performance of Soldiers, leaders, and units through the best mix of integrated LVCG training support simulations, devices, and products at each training location. Units could not execute air and missile defense operational training to standard without the requisite training support products (live, virtual constructive, and gaming training aids, devices, simulators and simulations ranges, instrumentation) and/or training support services (range operations, training support center operation, battle simulation center operations). Army-approved training strategies are designed to make best use of LVCG training capabilities to efficiently build and sustain unit training readiness. Sustainment training enables units to operate in a band of excellence (BOE) through appropriate repetition of critical tasks using a mixture of LVC training. The BOE is the range of proficiency within which a unit is capable of executing its critical wartime mission essential task list (METL) tasks.

7.1 Operational Training Concept and Strategy

The operational training strategy is to teach collective tasks using AIAMD improved C2 component ET capabilities and desktop training devices for sustainment/operations training during tactical operations (Baseline AMD Competency) and joint/unit training exercises (AMD Capstone Competency) per the AMD Training Strategy. The AIAMD improved mission command components must be linked to a networked training capability (functional embedded training) with ABCS devices, to include the Global Command and Control System-Army (GCCS-A) and other C4I devices. They must also link into the Family of Simulations (FAMSIM) for LVCG such as the Corps Battle System (CBS) and WARSIM 2000 for training, rehearsals and determining courses of action. Training design must leverage Synthetic Environment (SE) Core technologies to train and execute mission rehearsals in the SE and Synthetic Theater of War (STOW) environments. The ET must be interoperable through the STOW architecture to link the LVCG pieces of the training arena. The Combined Arms Training Strategy is the Army's overarching strategy for planning, resourcing, and executing current and future unit training. Commanders of Air and Missile Defense systems impacted by the integration of AIAMD SoS, and TNGDEVs, must ensure updates to the CATS necessary to sustain unit training are incorporated in the STRAP.

7.1.1 Product Lines

The required product lines for the operational domain are listed in the below table.

Training Aids:	None
Training Devices:	None
Simulators:	AIAMD Reconfigurable Table Top Trainer (RT3)
Simulations:	None
Instrumentation:	None

7.1.1.1 Training Information Infrastructure

The ET device will interface with the Combined Arms Tactical Trainer (CATT) family of simulators for real-time interactions within the institution or external entities. The ET device will exchange simulated and real-time data with other simulations (as available) for collective/combined arms exercises and must be compatible with CP tactical hardware and software and capable of receiving simulated track information and command and control (C2) over C4I networks; and be capable of receiving training software patches/updates using physical media or over-the-air update techniques.

7.1.1.1.1 Hardware, Software, and Communications Systems

The AKO infrastructure includes approved Learning Management Systems (LMS) to register students and track their progress, and provides an integrated platform for content, delivery, and management of learning via Web Based Training (WBT). The user interface is through an internet connection or use of an intranet and other standard communications protocols.

7.1.1.1.2 Storage, Retrieval, and Delivery

Digital information will be accessed via the Army Training Network (ATN), stored on the Central Army Registry (CAR), the Digital Training Management System (DTMS), or other military training repositories as necessary, and with new repositories as they evolve through the Army Training Information Architecture (ATIA).

7.1.1.1.3 Management Capabilities

The AKO LMS is an infrastructure platform through which learning content is delivered and managed. It consists of software tools that perform a variety of functions related to online and offline training administration, as well as student and performance management. The LMS will manage both the content and the users, and is flexible enough to expand with growth and maturity of the system and the organization it supports. The LMS provides the capability to author and manage courseware and content delivery. It works with Learning Content Management Systems (LCMS), using learning objects for reuse and syndication. This management system may also interface with a development environment for rapid upgrades. The LMS tracks student progression through lessons, exercises, and evaluations.

7.1.1.1.4 Other Enabling Capabilities

An IETM and exportable TSP will be used to augment delivery of interactive products. These electronic manuals and TSP will be archived on the Central Army Registry (CAR).

7.1.1.2 Training Products

A major part of the ASoS training subsystem is the common C2 component TSP. It contains the full complement of training support products required to support training of the common C2 components in the institution, during NET, and in support of unit sustainment/operations training. TSP components shall employ ET capabilities, be multimedia based, and use distributed Learning technologies. Multimedia training materials will conform to Army design standards, and be Sharable Content Object Reference Model (SCORM) compliant. The TADSS/training product requirements to support ASoS institutional and unit training are listed below.

7.1.1.2.1 Courseware

Specific courseware products not currently identified may be inserted into courses defined in paragraph 6.1.1.2.2 (Courses) or paragraph 6.1.1.3 (TADSS) and accessible through AKO for online registration through the Digital Training Access Center (DTAC) if available.

7.1.1.2.2 Courses

No Unit courses are anticipated for the operational training domain.

7.1.1.2.3 Training Publications

Refer to 6.1.1.2.3.

7.1.1.2.4 TSP

Collective and Individual analysis will determine the need for TSPs and will be developed as a part of the POI/lesson plan development process.

7.1.1.3 TADSS

Refer to paraghraph (6.1.1.3)

7.1.1.3.1 Training Aids

Ongoing Workgroups between FCoE and PM AIAMD will make determination and identify TADSS for the operational training domain.

7.1.1.3.2 Training Devices

PM Analysis for training devices is currently ongoing and will require extensive indepth knowledge and research to define requirements to develop.

7.1.1.3.3 Simulators

Simulators used in the Operational Training Domain are the same as in the Institutional Domain for AIAMD SoS (see 7.1.1.3.3).

7.1.1.3.4 Simulations

Simulations in support of ASoS must conform to the following criteria:

- Simulate operational data as available from actual data sources.
- Receive operational data from actual data sources.
- Integrate simulated and actual data.
- Present data to the operators, maintainers, leaders, and other users, by means of their normal operational equipment.
- Require operators, maintainers, leaders, and other users to perform their job tasks and duties in response to data presented.

The following DIS- and HLA-compatible simulations must model ASoS capabilities, such as scenarios from/through the simulators/instrumentation. This list is not meant to be all-inclusive, but lists the minimum current in-use or in-development simulations that must incorporate ASoS models.

- WARSIM is an aggregate and distributed constructive wargaming simulation designed to create an integrated synthetic battlespace, replicating a Contemporary Operational Environment (COE) and populating the common operational picture. WARSIM Interfaces with Commanders and Staff organic communications equipment to create a training environment indistinguishable from the real world by the training audience. WARSIM is a training device used to train Army Commanders and their Staffs at the Brigade and higher echelons in Army Warfighters and Mission Rehearsal Exercises. WARSIM includes an intelligence subcomponent, formally known as WIM, which has been fully integrated within the WARSIM system.
- OneSAF Objective System (OOS) is a next-generation Semi-Automated Forces (SAF) built on cutting-edge technologies, and has a completely new architecture from the ground up. OOS is an entity-level simulation designed to represent a full spectrum of combat, combat support, and combat service support capabilities at the brigade and below level. It is software only and platform independent; OOS runs on Linux, Solaris, and Windows 2000. It is composable, extensible, and interoperable. OOS will be one of the training common components on every Future Combat System (FCS) platform designed to enable an embedded training capability. It will include the domains of Advanced Concepts and Requirements (ACR), Training, Exercises, and Military Operations (TEMO), and Research, Development, and Acquisition (RDA).
- Embedded Training (ET) leverages the tactical software/hardware to drive engagement operations training. ET will interface with external simulations via DIS/HLA protocols. ET supports netted training and will provide live-over-sim capabilities. ET will support maintenance training via IMI, IETMs, fault injection, models & simulations, and interfacing to the diagnostic tool (institutional maintenance trainer). ET maintains records and supports AAR/evaluation activities in-field training and schoolhouse training are based on the same equipment - server stack and workstations.

7.1.1.3.5 Instrumentation

All common C2 components (Plt/Btry/Bn) shall be capable of entering and operating in communications nets that represent the tactical system in the training Joint netted environment equivalent to the tactical net. AIAMD communications will be capable of interfacing with training area instrumentation to transport data to a central data collection point (Plt/Btry/Bn) which may be a lap top computer, or established Army/Joint instrumentation systems (HITS, CTC-OIS, JNTC, etc.). Availability will depend on fielded unit locations.

7.1.1.4 Training Facilities and Land

Further analysis is needed to identify facility modifications for the operational domain.

7.1.1.4.1 Ranges

There are no requirements for ranges or target requirements beyond those set forth in the individual system STRAPs.

7.1.1.4.2 Maneuver Training Areas (MTA)

There are no requirements for maneuver training areas beyond those set forth in the individual system STRAPs.

7.1.1.4.3 Classrooms

Classroom facilities may be required to augment operational training. Training may be conducted from individual through crew levels. Examples of training are tactical seminars, on-line training courses, certification training, and testing. Embedded trainers on tactical equipment provide excellent training opportunities. Examples of classroom facilities that support self-development training are:

- Classroom XXI
- Digital training facilities (DTF)
- Weapons platforms
- Standard Classrooms
- Deployable Classrooms

7.1.1.4.4 CTCs

Not Applicable

7.1.1.4.5 Logistics Support Areas

Not Applicable

7.1.1.4.6 Mission Command Training Centers (MCTC)

None identified at this time

7.1.1.5 Training Services

USAADAS will provide training support to fielded ASoS elements by providing an online repository of training products and services via AKO or similar access-restricted means.

7.1.1.5.1 Management Support Services

The J/G/S-3 will manage courseware and distributed learning products through unit training channels.

7.1.1.5.2 Acquisition Support Services

Development of all products and instructors for NET may require contract(or) support. The PM is responsible for NET and associated support.

7.1.1.5.3 General Support Services

The MATDEV is responsible for reproduction of TSPs and procurement of long-term maintenance and support services for TADSS after initial fielding period if required.

7.1.2 Architectures and Standards Component

With the new Integrated Battle Command System (IBCS) capability, the battalion will have a new requirement to have certified Table VIII crews. Unit leaders will have the ability to achieve and sustain unit proficiency using embedded training (ET) software local in each Engagement Operation Center (EOC). The Content Management System (CMS) ET serves as a central access point to support scenario generation, scenario execution, performance assessment/evaluation, and after action reviews (AAR). The integrated fire control network (IFCN) supports "Standalone" or "Netted", data separation maintained via crypto-keys, training data synchronized at the master EOC and AKO-S is used to backup training data and provide updated vehicles for training material.

7.1.2.1 Operational View (OV)

Refer to paragraph 6.1.2.1.

7.1.2.2 Systems View (SV)

Refer to paragraph 6.1.2.2.

7.1.2.3 Technical View (TV)

Not Applicable

7.1.3 Management, Evaluation, and Resource (MER) Processes Component

The following paragraphs describe the institutional MER process.

7.1.3.1 Management

Where possible, ASoS will use existing Unit facilities and support infrastructure. The staff training estimate in support of ASoS will focus on the most efficient use of existing resources and identify and quantify any expected shortfalls. Training SOP development will focus on producing products that are capable of being used both in the institution and in the operational training domain and focused only on combat critical tasks. Training will incorporate the maximum use of simulations to mitigate cost and risk. Students and instructors will be routinely asked to evaluate training events and products to determine how best to improve the quality and efficiency of instruction and training events to provide the best quality training with the least expenditure of resources. These results must be forwarded to the Center for Army Lessons Learned (CALL) proponent.

7.1.3.1.1 Strategic Planning

T he development and fielding of ASoS must support Army and Training Transformation and be consistent with the guidance found in the following documents:

- National Defense strategies
- Joint Vision 2020
- The Army Plan and other Service plans
- Future force documentation
- TRADOC supporting plan to the Army Transformation Campaign Plan (ATCP)

7.1.3.1.2 Concept Development and Experimentation (CD&E)

Refer to paragraph 6.1.3.1.2.

7.1.3.1.3 Research and Studies

A Joint Inter-Agency Multinational Air and Missile Defense Mission Area (JAMA) Study was conducted with Joint, COCOM, and HLD organization participation (2004-05) which identified interoperability related gaps, incompatible, non-integrated information systems, inadequate ability to dynamically tailor ground-based AMD systems / components using plug and fight capabilities, limited capability to conduct Army and joint IFC to include EOR, no common operational capabilities, incomplete combat identification and friendly protect, marginal Single Integrated Air Picture (SIAP) capabilities. Their recommendation was to pursue a program for common operational enviroment capabilities.

An AIAMD SoS Analysis of Alternatives (AoA) effort was conducted 2007-2008 to determine best value, risk assessments, cost factors, interoperability, and supportability using on-site interviews with candidate systems to gain an understanding of the risks associated with programs to meet the AIAMD SoS CDD.

7.1.3.1.4 Policy and Guidance

See Army Regulation 350-1, DA Pamphlet 73-1, TRADOC Regulation 350-70, TRADOC, and Pamphlet 525-8-2 w/C1 06Jun2011.

7.1.3.1.5 Requirements Generation

Refer to paragraph 6.1.3.1.5.

7.1.3.1.6 Synchronization

Refer to paragraph 6.1.3.1.6.

7.1.3.1.7 Joint Training Support

Refer to paragraph 6.1.3.1.7.

7.1.3.2 Evaluation

Refer to paragraph 6.1.3.2.

7.1.3.2.1 Quality Assurance (QA)

Table VIII and Table XII evaluations are unit collective events that provide a means for instilling crew integrity, team work, and unit cohesiveness. These evaluations are used as a tool to validate the training proficiency of air defense crews within the unit. Table VIII and Table XII evaluations are placed on the unit's master activities calendar (MAC), and are briefed during the quarterly training brief (QTB). Table VIII and Table XII evaluations are only administered to units that have planned, developed, and executed a progressive training program that has trained crews from Table I through Table VII and Table IX through Table XI.

7.1.3.2.2 Assessments

Only after a successful Table VII or Table XI, may a unit be eligible for a Table VIII or Table XII. Battery commanders assess their units at Tables VII and XI level prior to attempting Table VIII or XII evaluations. This allows the unit commander to make a full assessment of the battery's proficiency before an external evaluation by either battalion or brigade.

7.1.3.2.3 Customer Feedback

Not Applicable

7.1.3.2.4 Lessons Learned/After-Action Reviews (AARs)

Quality Assurance office (QAO) sends an automated survey to each student and their supervisor six months after course graduation. Soldier and supervisor assess if the Soldier can perform the individual critical tasks for their job.

7.1.3.3 Resource Processes

Refer to paragraph 6.1.3.3.

8.0 Self-Development Training Domain

IETM, TM, TSP will be left with the organizations and will also be available through the Central Army Registry (CAR) and other available Army Enterprise Learning Management Databases. During training material development, media evaluation and selection will be performed to determine the most effective, efficient and cost effective means of conveying lesson material. Multimedia products will be considered during the analysis of media selection that includes, but are not limited to: Computer- Assisted Instruction (CAI); Computer-Based Training (CBT); and Web-Based Training (WBT). Compact Disk-Read Only Memory (CD-ROM) will likely be the issued to units and Soldiers for primary and secondary resources for continued learning.

8.1 Self-Development Training Concept and Strategy

Reinforcement and sustainment training for Soldiers will primarily be accomplished through system embedded training. The improved C2 component ET capability will provide the link which will allow training on the principles and functional theory of operations and integration, both vertically and horizontally, of the common C2 capability to Army and joint services. Training will be conducted in both peacetime and mobilization environments.

8.1.1 Product Lines

There shall be a training material "reach back" capability via the internet to link to Army Knowledge Enterprise compliant repositories to obtain updates of data, access additional training products, or exchange training products.

8.1.1.1 Training Information Infrastructure

An AIAMD RT3 device may be available for MOS self-development training.

8.1.1.1.1 Hardware, Software, and Communications Systems

The AKO infrastructure includes approved Learning Management Systems (LMS) that register students and track their progress, and provides an integrated platform for content, delivery, and management of learning via Web Based Training (WBT). The user interface is through an internet connection or use of an intranet and other standard communications protocols.

8.1.1.1.2 Storage, Retrieval, and Delivery

Digital information will be accessed via the Army Training Network (ATN), stored on the Central Army Registry (CAR), the Digital Training Management System (DTMS), or other military training repositories as necessary, and with new repositories as they evolve through the Army Training Information Architecture (ATIA).

8.1.1.1.3 Management Capabilities

The AKO ALMS is an infrastructure platform through which learning content is delivered and managed. It consists of software tools that perform a variety of functions related to online and offline training administration, as well as student and performance management. There may be a requirement for organizational leaders to coordinate training events hosted by and with other external units utilizing the IBCS netted capability for training.

8.1.1.1.4 Other Enabling Capabilities

Interactive Electronic Technical Manuals (IETM) and Training Support Packages (TSPs) will be used to augment delivery of interactive products. These electronic manuals and training packages will be archived on the Central Army Registry (CAR).

8.1.1.2 Training Products

All training support manuals, training literature publications, and other training products will be provided during NET, it is the unit's responsibility to make these materials available to individual Soldiers for self development. The training materials will also be available on the Central Army Registry.

8.1.1.2.1 Courseware

Specific courseware products not currently identified may be inserted into courses defined in paragraph 6.1.1.2.2 (Courses) or paragraph 6.1.1.3.

8.1.1.2.2 Courses

Not Applicable

8.1.1.2.3 Training Publications

The program requires the following training publications and digital training content:

- Technical Manuals (TM)
- Training Circulars (TC)
- Mobile Applications (App)

- Interactive Electronic Technical Manual (IETM)

8.1.1.2.4 Training Support Package (TSP)

Collective and Individual analysis will determine the need for TSPs and will be developed as a part of the POI/lesson plan development process.

8.1.1.3 Training Aids, Devices, Simulators and Simulations (TADSS)

Refer to paragraph 6.1.1.3.

8.1.1.3.1 Training Aids

Refer to paragraph 6.1.1.3.1.

8.1.1.3.2 Training Devices

PM Analysis for training devices is currently ongoing and will require extensive indebt knowledge and research to define requirements to develop.

8.1.1.3.3 Simulators

Not Applicable

8.1.1.3.4 Simulations

Not Applicable

8.1.1.3.5 Instrumentation

There is no instrumentation is available for self-development training.

8.1.1.4 Training Facilities and Land

Not Applicable

8.1.1.5 Training Services

USAADAS will provide training support by providing an online repository of training products and services via AKO, the Army Training Network (ATN), or similar access-restricted means.

8.1.1.5.1 Management Support Services

Training products and courseware will be managed by in-house course managers.

8.1.1.5.2 Acquisition Support Services

Development of DL products requires contractor support. The PM is responsible for associated support.

8.1.1.5.3 General Support Services

Reproduction of DL media and procurement of support services may be required.

8.1.2 Architectures and Standards Component

Not Applicable

8.1.3 Management, Evaluation, and Resource (MER) Processes Component

Refer to paragraph 6.1.3.

8.1.3.1 Management

Refer to paragraph 7.1.3.1.

8.1.3.1.1 Strategic Planning

Refer to paragraph 7.1.3.1.1.

8.1.3.1.2 Concept Development and Experimentation (CD&E)

Refer to paragraph 6.1.3.1.2.

8.1.3.1.3 Research and Studies

Refer to paragraph 7.1.3.1.3.

8.1.3.1.4 Policy and Guidance

Refer to paragraph 7.1.3.1.4.

8.1.3.1.5 Requirements Generation

Refer to paragraph 6.1.3.1.5.

8.1.3.1.6 Synchronization

Refer to paragraph 6.1.3.1.6.

8.1.3.1.7 Joint Training Support

Refer to paragraph 6.1.3.1.7.

8.1.3.2 Evaluation

Refer to paragraph 6.1.3.2.

8.1.3.2.1 Quality Assurance (QA)

The AKO infrastructure includes approved Learning Management Systems (LMS) that provide an integrated platform for content, delivery, assessment, and management of learning via Web Based Training (WBT).

8.1.3.2.2 Assessments

Methodology will be primarily through student evaluation, Lessons Learned, and after action reviews (AAR). The AKO infrastructure includes approved Army Learning Management Systems (ALMS) that provide an integrated platform for content, delivery, assessment, and management of learning via Web Based Training (WBT).

8.1.3.2.3 Customer Feedback

Methodology will be primarily through student evaluation, Lessons Learned, and after action reviews (AAR). The AKO infrastructure includes approved Learning Management Systems (LMS) that provide an integrated platform for content, delivery, assessment, and management of learning via Web Based Training (WBT).

8.1.3.2.4 Lessons Learned/After-Action Reviews (AARs)

Not Applicable

8.1.3.3 Resource Processes

Refer to paragraph 6.1.3.3.

A Milestone Annex

Sheet A

TRAINING DEVELOPMENT MANAGEMENT INFORMATION		Materiel Requirements Document
SYSTEM	ACAT II	TRADOC SYMBOL ATSA-D	AS OF DATE Sep 2012

POC	NAME	OFFICE SYMBOL	TELEPHONE
MATERIEL COMMAND	Kathleen Carnell	SFAE-MSLS-IAMD-L	(256) 876-9758, DSN 746
TRADOC PROPONENT	LTC Ronald B Hildner	ATSF-D	(580) 442-2817, DSN 639
TCM:	MAJ James Carpenter	ATSF-FML	(580) 442-6042, DSN 639
CD:	Wayland Davis	ATSF-FR	(580) 558-0744, DSN 495
TD:	Willie Chives	ATST-DE	(580) 558-0368, DSN 495
SUPPORTING PROPONENTS:			

ITEM	DATE	RESPONSIBLE AGENCY/POC	OFFICE SYMBOL	TELEPHONE
ICD:	Jan 06	CDID	ATSF-FR	(256) 313-4084, DSN 987
SMMP:	Oct 16	AMCOM	IMMC	(256) 313-2147, DSN 987
CDD:	Oct 10	CDID	ATSF-FR	(580) 558-0744, DSN 495
CPD:	Feb 16	CDID	ATSF-FR	(580) 558-0744, DSN 495
LCSP:	Oct 17	IAMD PO	SFAE-MSLS-IAMD-LT	(256) 876-7047, DSN 746
TTSP:	May 15	DOTD	ATSF-DE	(580) 558-0368, DSN 495
QQPRI:	May 13	IAMD PO	SFAE-MSLS-IAMD-LT	(256) 313-4084, DSN 987
BOIP: /DP:	May 14	IAMD PO	SFAE-MSLS-IAMD-LT	(256) 313-4084, DSN 987
NETP:	Sep 15	AMCOM	IMMC	(256) 876-7410, DSN 746

COMMENTS: (Continue on reverse side if necessary)

TRADOC FORM 569R-E, Aug 89

Sheet B:

Individual Training Plan (ITP) Note: Modifications may be necessary to individual ASoS systems ITPs for the following MOSs: Enlisted-14E, 14G, 14H, 14S, 14T, 25N, 25Q, 94F, 94M, 94S, Officer-14A, Warrant Officer-140A, 140E

Milestone:

Date

1. Initial Individual Training Plan (ITP) submitted.	TBD
2. Annotated task list submitted.	FY14
3. Course Administrative Data (CAD) submitted PDSI.	FY13
4. Course Administrative Data (CADs) submittion.	FY16
5. POI submitted.	FY21
6. Institutional Training Base start date	FY22

Army Training Literature

Note: Includes the Soldiers Manual, Trainers Guide, and Training Circular products.

Milestone:

Date

1. Requirements identified (ICTL).	3QFY16
2. STP/TC Coordinating Draft (CD).	3QFY16
3. Draft ADTLP changes validated.	2QFY16
4 TRADOC Staffing/Approval	3QFY16
5. STP/TC Final Draft (FD)	1QFY17
6. Replication/distribution completed.	2QFY17

Interactive Multimedia Instruction (IMI)/Distributed Learning

Milestone:

Date

1. Requirements identified and submitted for approval (task analysis).	TBD
2. Requirements approved by Proponent.	TBD
3. Identify resources.	TBD
4. Develop and Validate courseware.	TBD
5. Master materials to ATSC for replication and distribution.	TBD
6. Replication and distribution completed.	TBD

Training Effectiveness Analysis (TEA)

Milestone:

(Conducted in-house, by contract, Training Development and Analysis Activity [TDAA], TRADOC Analysis Center [TRAC], or Program Manager [PM])	TBD
1. TEA during capabilities development.	TBD
2. TEA updated for Milestone Decision Review A.	TBD
3. TEA updated for Milestone Decision Review B.	TBD
4. TEA updated for Milestone Decision Review C.	TBD
5. Post-Fielding TEA (PFTEA) planned.	TBD

Milestone:

Army Visual Information Production and Distribution Program (DAVIPDP)

Milestone:

Date

1. High-risk tasks and jobs identified.	N/A
2. Validated in storyboard.	N/A
3. DAVIPDP requirements submitted to ATSC.	N/A
4. Requirements approved by DA.	N/A
5. Production initiated.	N/A

Facilities

Milestone:

Date

1. Range and facility requirements identified.	TBD
2. Identification of construction requirements completed.	TBD
3. Construction requirements submitted to MACOM.	TBD
4. Requirements validated and updated.	TBD
5. Supporting requirements identified and availability coordinated.	TBD
6. Installation and other construction requirements submitted to MACOM.	TBD

7. Refined construction requirements and range criteria forwarded to MACOM, IMA, Chief of Engineers	TBD
8. Construction initiated.	TBD

Training Equipment/TADSS

Milestone:

Date

1. High risk, hard-to-train tasks identified.	N/A
2. TADSS concept validated.	TBD
3. Need for TADSS/ET identified.	FY14
4. TADSS/ET incorporated into the STRAP.	FY14
5. Analytical justification via TEA.	N/A
6. Training CPD para. developed, if required.	FY14
7. TADSS/ET incorporated into the Capabilities Production Document (CPD).	FY16
8. MOS-specific milestone/requirements for TADSS/ET developed and incorporated in integrated training strategy (ITS).	TBD
9. TADSS/ET effectiveness validated (PFTEA).	TBD

Training Services

Milestone:

Date

1. Contractor Logistic Support	TBD
2. Contractor NET Support	TBD
3. Contractor DET Support	N/A

Training Ammunition

Milestone:

Date

1. Ammunition identified.	NA
2. Initial ammunition requirements validated.	NA
3. Requirements included in the ORD.	NA
4. Ammunition item developed.	NA
5. Validation and test completed.	NA
6. Ammunition requirements identified in the ITP.	NA
7. Requirements provided to installation/MACOM manager.	NA
8. Requirements included in DA Pam 350-38.	NA
9. Production entered.	NA

B References

Listed below are documents that support program initiation and development through JCIDS:

- CONOPS - AIAMD SoS Incr. 2 Feb 2009

- STRAP - System Training Plan (AIAMD SoS), Approved 4 Nov 2009

- CDD - Capabilities Development Document (AIAMD SoS), DA Approved 21 Oct 2010

- CONOPS - (AIAMD) Mar 2012

C Coordination Annex

Organization/POC (Date)	Summary of Comments Submitted (A/S/C)			Comments Accepted/ Rejected						Rationale for Non-Acceptance - S, C
				Accepted			Rejected			
	A	S	C	A	S	C	A	S	C	
v2.2.3 Ronald B Hildner 2014/12/04 - 2014/12/14	Document Accepted As Written			0	0	0	0	0	0	-
v2.2.2 Approvals - dennis Wao 2014/11/26 - 2014/12/06	Document Accepted As Written			0	0	0	0	0	0	-
v2.2 Army - USASOC 2014/10/21 - 2014/11/13	No Comments Submitted			0	0	0	0	0	0	-
v2.2 Army - USAREUR 2014/10/21 - 2014/11/13	No Comments Submitted			0	0	0	0	0	0	-
v2.2 Army - USARC G7 (US Army Reserve Cmd) 2014/10/21 - 2014/11/13	No Comments Submitted			0	0	0	0	0	0	-
v2.2 Army - USAMA 2014/10/21 - 2014/11/13	No Comments Submitted			0	0	0	0	0	0	-
v2.2 Army - USAACE - Aviation School 2014/10/21 -	No Comments Submitted			0	0	0	0	0	0	-

2014/11/13										
v2.2 Army - US Joint Forces Command Net-C2 2014/10/21 - 2014/11/13	No Comments Submitted			0	0	0	0	0	0	-
v2.2 Army - TRADOC_ARCIC 2014/10/21 - 2014/11/13	No Comments Submitted			0	0	0	0	0	0	-
v2.2 Army - TRADOC G-3/5 2014/10/21 - 2014/11/13	No Comments Submitted			0	0	0	0	0	0	-
v2.2 Army - TRADOC Command Safety Office 2014/10/21 - 2014/11/13	No Comments Submitted			0	0	0	0	0	0	-
v2.2 Army - TCM-Virtual (CS/CSS) 2014/10/21 - 2014/11/13	No Comments Submitted			0	0	0	0	0	0	-
v2.2 Army - TCM-SBCT 2014/10/21 - 2014/11/13	2	2	0	2	2	0	0	0	0	
v2.2 Army - TCM-Live 2014/10/21 - 2014/11/13	No Comments Submitted			0	0	0	0	0	0	-
v2.2 Army - TCM-Gaming 2014/10/21 -	No Comments Submitted			0	0	0	0	0	0	-

2014/11/13								
v2.2 Army - TCM-ABCT 2014/10/21 - 2014/11/13	No Comments Submitted	0	0	0	0	0	0	-
v2.2 Army - TCM TADLP 2014/10/21 - 2014/11/13	Document Accepted As Written	0	0	0	0	0	0	-
v2.2 Army - TCM ITE 2014/10/21 - 2014/11/13	No Comments Submitted	0	0	0	0	0	0	-
v2.2 Army - TCM Intel Sensors 2014/10/21 - 2014/11/13	No Comments Submitted	0	0	0	0	0	0	-
v2.2 Army - TCM Constructive 2014/10/21 - 2014/11/13	No Comments Submitted	0	0	0	0	0	0	-
v2.2 Army - TCM ATIS 2014/10/21 - 2014/11/13	No Comments Submitted	0	0	0	0	0	0	-
v2.2 Army - Space & Missile Defense Command 2014/10/21 - 2014/11/13	No Comments Submitted	0	0	0	0	0	0	-
v2.2 Army - SCoE 2014/10/21 - 2014/11/13	No Comments Submitted	0	0	0	0	0	0	-
v2.2 Army - PM-UAS								

2014/10/21 - 2014/11/13	No Comments Submitted	0	0	0	0	0	0	-
v2.2 Army - PM SCIE 2014/10/21 - 2014/11/13	No Comments Submitted	0	0	0	0	0	0	-
v2.2 Army - PM PROPHET 2014/10/21 - 2014/11/13	No Comments Submitted	0	0	0	0	0	0	-
v2.2 Army - PM Fixed Wing 2014/10/21 - 2014/11/13	No Comments Submitted	0	0	0	0	0	0	-
v2.2 Army - PM DCGS-A 2014/10/21 - 2014/11/13	No Comments Submitted	0	0	0	0	0	0	-
v2.2 Army - PM AMPV 2014/10/21 - 2014/11/13	Document Accepted As Written	0	0	0	0	0	0	-
v2.2 Army - PM Air Warrior 2014/10/21 - 2014/11/13	No Comments Submitted	0	0	0	0	0	0	-
v2.2 Army - PEO-STRI Customer Support Group 2014/10/21 - 2014/11/13	Document Accepted As Written	0	0	0	0	0	0	-
v2.2 Army - PEO Missiles and Space (IAMD)	No Comments	0	0	0	0	0	0	-

2014/10/21 – 2014/11/13	Submitted							
v2.2 Army – PEO C3T PM TR 2014/10/21 – 2014/11/13	No Comments Submitted	0	0	0	0	0	0	-
v2.2 Army – PEO C3T PM MC, RMD 2014/10/21 – 2014/11/13	No Comments Submitted	0	0	0	0	0	0	-
v2.2 Army – PEO Aviation 2014/10/21 – 2014/11/13	No Comments Submitted	0	0	0	0	0	0	-
v2.2 Army – MSCoE – MANSCEN 2014/10/21 – 2014/11/13	Document Accepted As Written	0	0	0	0	0	0	-
v2.2 Army – MCoE – Infantry & Armor School 2014/10/21 – 2014/11/13	No Comments Submitted	0	0	0	0	0	0	-
v2.2 Army – MCCoE, DOT-S 2014/10/21 – 2014/11/13	No Comments Submitted	0	0	0	0	0	0	-
v2.2 Army – LD&E 2014/10/21 – 2014/11/13	No Comments Submitted	0	0	0	0	0	0	-
v2.2 Army – IMCOM 2014/10/21 – 2014/11/13	No Comments Submitted	0	0	0	0	0	0	-
v2.2 Army – ICoE –								

Mil Intelligence School 2014/10/21 - 2014/11/13	Document Accepted As Written	0	0	0	0	0	0	-
v2.2 Army - Human Resource Command (HRC) 2014/10/21 - 2014/11/13	No Comments Submitted	0	0	0	0	0	0	-
v2.2 Army - HQDA G2 - Alternate POC 2014/10/21 - 2014/11/13	No Comments Submitted	0	0	0	0	0	0	-
v2.2 Army - HQDA G2 2014/10/21 - 2014/11/13	Document Accepted As Written	0	0	0	0	0	0	-
v2.2 Army - HQDA G-1/AMPV Only 2014/10/21 - 2014/11/13	No Comments Submitted	0	0	0	0	0	0	-
v2.2 Army - HQDA DCS G-8 2014/10/21 - 2014/11/13	No Comments Submitted	0	0	0	0	0	0	-
v2.2 Army - HQ INSCOM G3, NWD 2014/10/21 - 2014/11/13	No Comments Submitted	0	0	0	0	0	0	-
v2.2 Army - FCoE - Field Artillery 2014/10/21 - 2014/11/13	Document Accepted As Written	0	0	0	0	0	0	-
v2.2 Army -								

DAMO-TRS 2014/10/21 - 2014/11/13	No Comments Submitted	0	0	0	0	0	0	-	
v2.2 Army - CYBER CoE - Signal School 2014/10/21 - 2014/11/13	No Comments Submitted	0	0	0	0	0	0	-	
v2.2 Army - CYBER CoE - OCOS 2014/10/21 - 2014/11/13	Document Accepted As Written	0	0	0	0	0	0	-	
v2.2 Army - CTCD 2014/10/21 - 2014/11/13	No Comments Submitted	0	0	0	0	0	0	-	
v2.2 Army - Combined Arms Center 2014/10/21 - 2014/11/13	No Comments Submitted	0	0	0	0	0	0	-	
v2.2 Army - CAC-T; Training Management Dir 2014/10/21 - 2014/11/13	0	22	0	0	11	0	0	11	0
v2.2 Army - Brigade Modernization Cmd (BMC) 2014/10/21 - 2014/11/13	No Comments Submitted	0	0	0	0	0	0	-	
v2.2 Army - AVNCoE Aviation Logistics School 2014/10/21 - 2014/11/13	No Comments Submitted	0	0	0	0	0	0	-	

v2.2 Army - ATSC TSAID 2014/10/21 - 2014/11/13	No Comments Submitted	0	0	0	0	0	0	-
v2.2 Army - ATSC Fielded Devices 2014/10/21 - 2014/11/13	No Comments Submitted	0	0	0	0	0	0	-
v2.2 Army - ARNG-RMQ-RA 2014/10/21 - 2014/11/13	Document Accepted As Written	0	0	0	0	0	0	-
v2.2 Army - Army National Guard 2014/10/21 - 2014/11/13	No Comments Submitted	0	0	0	0	0	0	-
v2.2 Army - Army Material Command (AMC), G3 2014/10/21 - 2014/11/13	No Comments Submitted	0	0	0	0	0	0	-
v2.2 Army - AMEDD Center & School 2014/10/21 - 2014/11/13	Document Accepted As Written	0	0	0	0	0	0	-
v2.1 Peer - USARSO G3 2014/09/11 - 2014/10/03	No Comments Submitted	0	0	0	0	0	0	-
v2.1 Peer - USARSO G2 2014/09/11 - 2014/10/03	No Comments Submitted	0	0	0	0	0	0	-
v2.1 Peer -								

USARCENT G2 2014/09/11 – 2014/10/03	No Comments Submitted	0	0	0	0	0	0	-
v2.1 Peer - USARC G7 (US Army Reserve Cmd) 2014/09/11 – 2014/10/03	No Comments Submitted	0	0	0	0	0	0	-
v2.1 Peer - USAACE - Aviation School 2014/09/11 – 2014/10/03	Document Accepted As Written	0	0	0	0	0	0	-
v2.1 Peer - Transportation School 2014/09/11 – 2014/10/03	No Comments Submitted	0	0	0	0	0	0	-
v2.1 Peer - Soldier Support Institute (SSI) 2014/09/11 – 2014/10/03	No Comments Submitted	0	0	0	0	0	0	-
v2.1 Peer - PM-UAS 2014/09/11 – 2014/10/03	No Comments Submitted	0	0	0	0	0	0	-
v2.1 Peer - PM-Tactical Vehicles 2014/09/11 – 2014/10/03	No Comments Submitted	0	0	0	0	0	0	-
v2.1 Peer - PEO-STRI Customer Support Group 2014/09/11 – 2014/10/03	Document Accepted As Written	0	0	0	0	0	0	-

v2.1 Peer - PEO C3T PM TR 2014/09/11 - 2014/10/03	No Comments Submitted	0	0	0	0	0	0	-	
v2.1 Peer - PEO C3T, MC, RMD 2014/09/11 - 2014/10/03	No Comments Submitted	0	0	0	0	0	0	-	
v2.1 Peer - MSCoE - MANSCEN 2014/09/11 - 2014/10/03	38	2	1	37	2	0	1	0	1
v2.1 Peer - MCoE - Infantry & Armor School 2014/09/11 - 2014/10/03	Document Accepted As Written	0	0	0	0	0	0	-	
v2.1 Peer - MCCoE, DOT-S 2014/09/11 - 2014/10/03	No Comments Submitted	0	0	0	0	0	0	-	
v2.1 Peer - Legal Center/School 2014/09/11 - 2014/10/03	No Comments Submitted	0	0	0	0	0	0	-	
v2.1 Peer - IMCOM 2014/09/11 - 2014/10/03	Document Accepted As Written	0	0	0	0	0	0	-	
v2.1 Peer - ICoE - Mil Intelligence School 2014/09/11 - 2014/10/03	12	0	0	12	0	0	0	0	0
v2.1 Peer - Human									

Resource Command (HRC) 2014/09/11 - 2014/10/03	No Comments Submitted			0	0	0	0	0	0	-
v2.1 Peer - FCoE-ADA School 2014/09/11 - 2014/10/03	3	0	0	3	0	0	0	0	0	
v2.1 Peer - FCoE - Field Artillery 2014/09/11 - 2014/10/03	Document Accepted As Written			0	0	0	0	0	0	-
v2.1 Peer - CYBER CoE - Signal School 2014/09/11 - 2014/10/03	No Comments Submitted			0	0	0	0	0	0	-
v2.1 Peer - CYBER CoE - OCOS 2014/09/11 - 2014/10/03	No Comments Submitted			0	0	0	0	0	0	-
v2.1 Peer - Brigade Modernization Cmd (BMC) 2014/09/11 - 2014/10/03	No Comments Submitted			0	0	0	0	0	0	-
v2.1 Peer - BCT CoE - Fort Jackson, SC 2014/09/11 - 2014/10/03	No Comments Submitted			0	0	0	0	0	0	-
v2.1 Peer - ATEC 2014/09/11 - 2014/10/03	No Comments Submitted			0	0	0	0	0	0	-

v2.1 Peer - Army Research Laboratory (ARL) 2014/09/11 - 2014/10/03	No Comments Submitted	0	0	0	0	0	0	-
v2.1 Peer - Army Finance School 2014/09/11 - 2014/10/03	No Comments Submitted	0	0	0	0	0	0	-
v2.1 Peer - AMEDD Center & School 2014/09/11 - 2014/10/03	Document Accepted As Written	0	0	0	0	0	0	-
v2.1 Peer - AMC G-8 2014/09/11 - 2014/10/03	No Comments Submitted	0	0	0	0	0	0	-
v2.1 Peer - 84th Training (USAR) 2014/09/11 - 2014/10/03	No Comments Submitted	0	0	0	0	0	0	-
v2.1 Peer - 428th BDE 2014/09/11 - 2014/10/03	No Comments Submitted	0	0	0	0	0	0	-

Key
Completed Review with Comments
Completed Review, No Comments
Active Review Occurring

DEPARTMENT OF THE ARMY
HEADQUARTERS UNITED STATES ARMY FIRES CENTER OF EXCELLENCE AND FORT SILL
AIR DEFENSE ARTILLERY SCHOOL
730 SCHIMMELPFENNIG ROAD, SUITE 152
FORT SILL, OKLAHOMA 73503

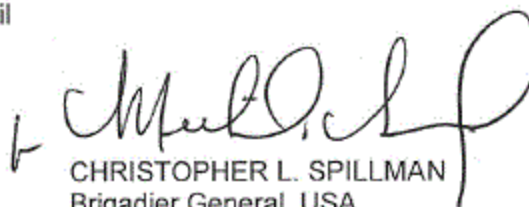ATSA-C   21 November 2014

MEMORANDUM FOR RECORD

SUBJECT: Army Integrated Air Missile Defense (AIAMD) System Training Plan

1. References:

    a. TRADOC Regulation 71-20, Concept Development, Capabilities Determination, and Capabilities Integration, 28 June 2013

    b. MOI for Training and Transfer of STRAP Approval Authority, 25 April 2012

    c. Delegation of System Training Plan (STRAP) Approval Authority, 21 May 2014

2. I approve the AIAMD System Training Plan. A copy of the plan will be posted to the Central Army Registry within 30 days of the approval date.

3. Point of contact for this action is LTC Ronald B. Hildner, Air Defense Enlisted Training Division, Directorate of Training Doctrine, (580) 442-3611, ronald.b.hildner.mil@mail.mil

CHRISTOPHER L. SPILLMAN
Brigadier General, USA
Commandant

AIAMD Approval Memo